CHAPTER 12: PROPOSED PHASE III EARLY RESTORATION PROJECTS: FLORIDA (continued)

12.46 Walton County Boardwalks and Dune Crossovers: Project Description A (Ed Walline Beach Access Improvements)

This project includes several components and the environmental review is done at the project level.

12.46.1 Project Summary

The proposed Walton County Ed Walline Beach Access Improvements project would improve the Ed Walline regional beach access facility in Walton County. The proposed improvements include replacing pavilions and restroom fixtures and updating all interior plumbing. The total estimated cost of the project is $117,700.

12.46.2 Background and Project Description

The Trustees propose to improve facilities at the Ed Walline regional beach access facility in Walton County, FL (see Figure 12-1 for general location). The objective of the Walton County Ed Walline Beach Access Improvement project is to enhance and/or increase recreational beach use opportunities by improving the facilities at the Ed Walline beach access point. The restoration work proposed includes replacing pavilions and restroom fixtures and upgrading all interior plumbing.

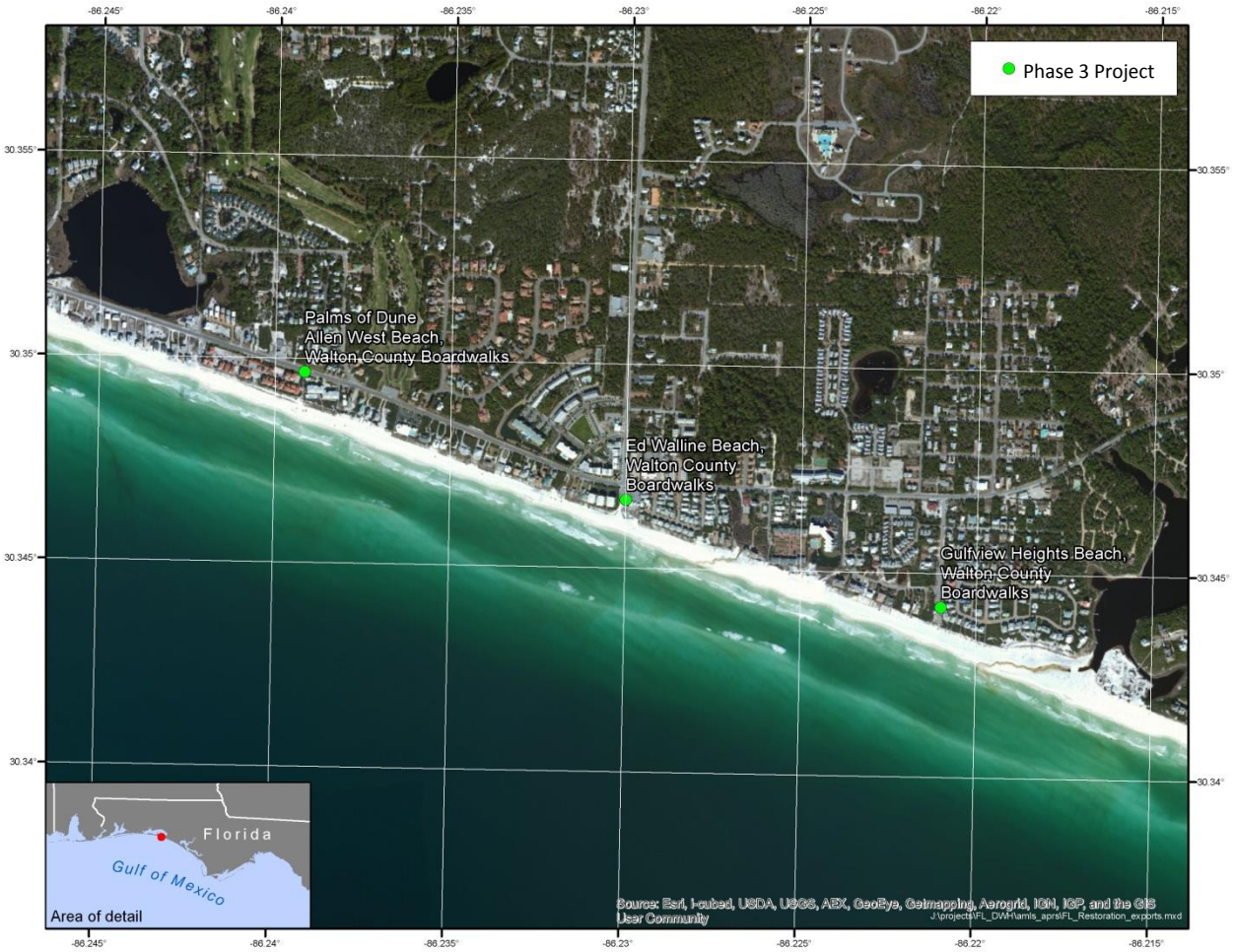


Figure 12-1. Location of Walton County Boardwalks and Dune Crossovers: Ed Walline Beach Access Improvements Project.

12.46.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Ed Walline Beach Access Improvement project is intended to enhance and/or increase recreational beach use opportunities by improving the facilities at the Ed Walline beach access point. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Ed Walline Beach Access Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.46.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objectives are to enhance and/or increase recreational beach use opportunities by improving the facilities at the Ed Walline beach access point. Performance monitoring will evaluate: 1) the replacement of the pavilions; 2) the replacement of the restroom fixtures; and 3) the update of all interior plumbing. Specific performance criteria include: 1) completion of the construction as designed

and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facilities are open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access point. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.46.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[1]

12.46.6 Costs

The total estimated cost to implement this project is $117,700. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[1] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.47 Walton County Boardwalks and Dune Crossovers: Project Description B (Gulfview Heights Beach Access Improvements)

12.47.1 Project Summary

The proposed Walton County Gulfview Heights Beach Access Improvements project would improve the Gulfview Heights beach access facility in Walton County. The proposed improvements include replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions. The total estimated cost of the project is $87,981.

12.47.2 Background and Project Description

The Trustees propose to improve facilities at the Gulfview Heights beach access facility in Walton County, FL (see Figure 12-2 for general location). The objective of the Walton County Gulfview Heights Beach Access Improvement project is to enhance and/or increase recreational beach use opportunities by improving the existing facilities at the beach access point. The restoration work proposed includes replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions.

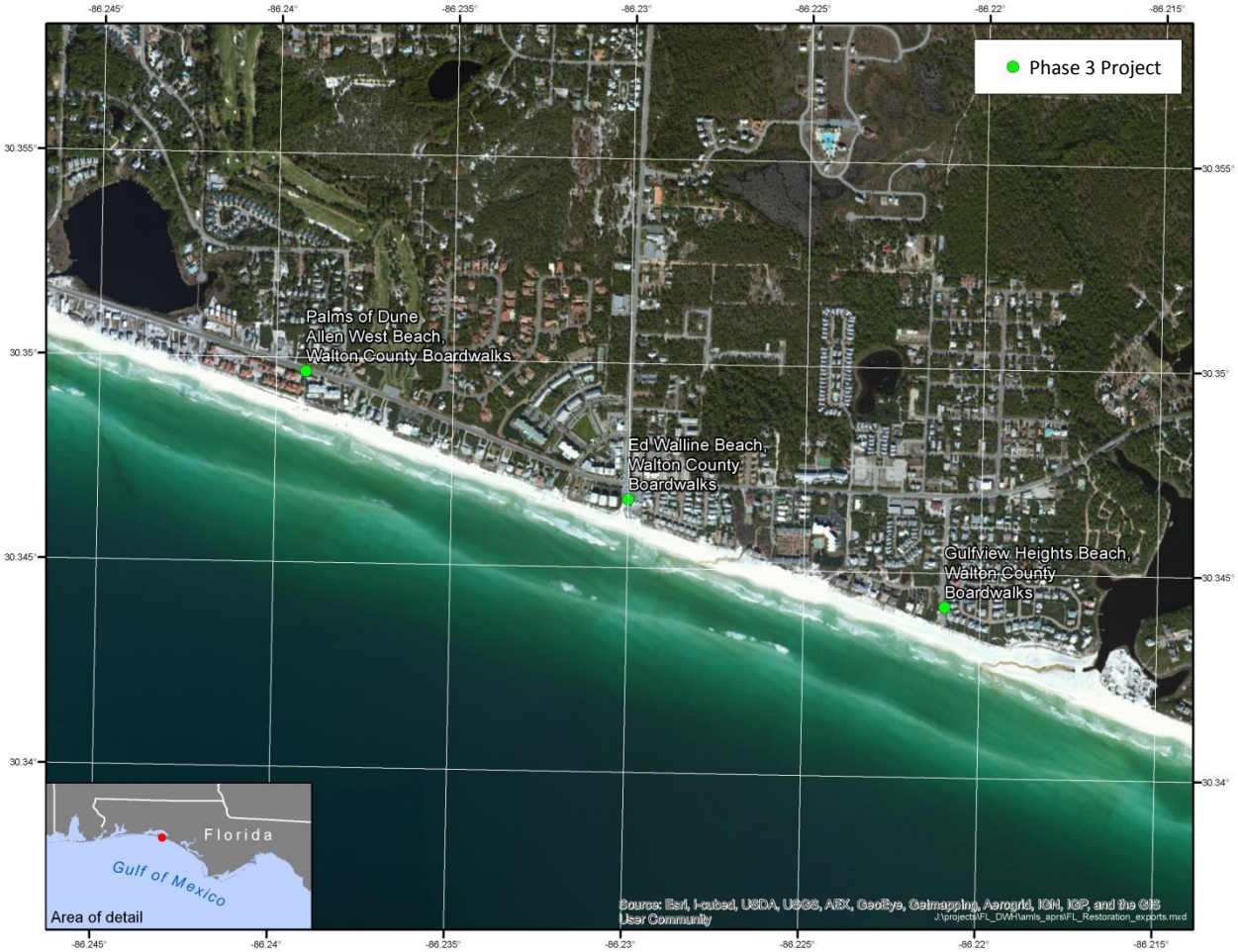


Figure 12-2. Location of Walton County Boardwalks and Dune Crossovers: Gulfview Heights Beach Access Improvements Project.

12.47.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Gulfview Heights Beach Access Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving the existing facilities at the beach access point. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Gulfview Heights Beach Access Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.47.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objectives are to enhance and/or increase recreational beach use opportunities by improving the existing facilities at the beach access point. Performance monitoring will evaluate: 1) the replacement of the restroom fixtures; 2) the update of all interior plumbing; and 3) the repair of all soffits on pavilions. Specific performance criteria include: 1) the completion of the construction as

designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facilities are open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access point. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.47.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[2]

12.47.6 Costs

The total estimated cost to implement this project is $87,981. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[2] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.48 Walton County Boardwalks and Dune Crossovers: Project Description C (Grayton Dunes Beach Access Boardwalk Improvements)

12.48.1 Project Summary

The proposed Walton County Grayton Dunes Beach Access Boardwalk Improvements project would improve the Grayton Dunes beach access and boardwalk facility in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The total estimated cost of the project is $168,076.

12.48.2 Background and Project Description

The Trustees propose to improve facilities at the Grayton Dunes beach access boardwalk in Walton County, FL (see Figure 12-3 for general location). The objective of the Walton County Grayton Dunes Beach Access Boardwalk Improvement project is to enhance and/or increase recreational beach use opportunities by improving access to the beach. The restoration work proposed includes replacing the dune walkover allowing beach visitors to access the beach.

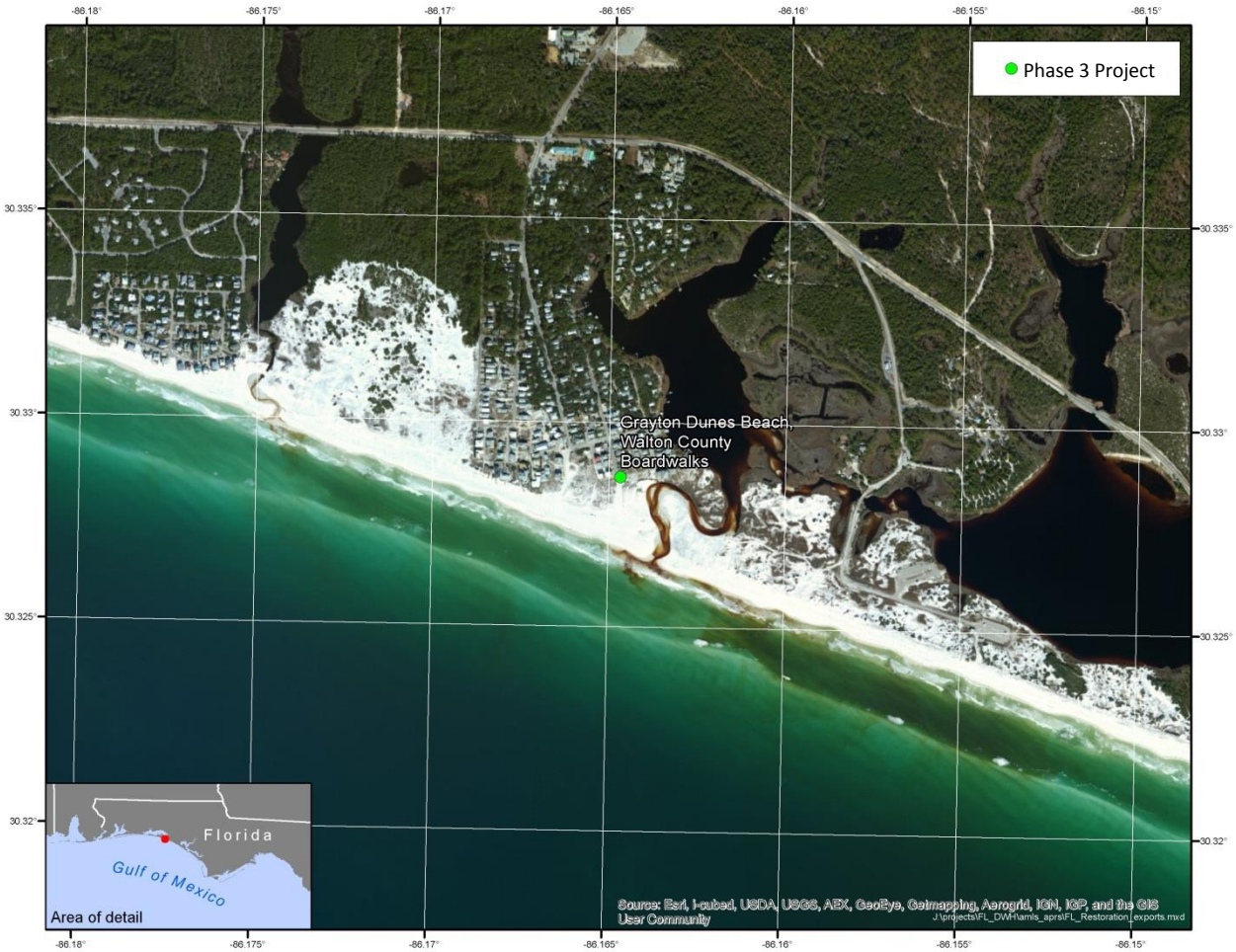


Figure 12-3. Location of Walton County Boardwalks and Dune Crossovers: Grayton Dunes Beach Access Improvements Project.

12.48.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Grayton Dunes Beach Access Boardwalk Improvements is intended to enhance and/or increase recreational beach use opportunities by improving access to the beach. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Grayton Dunes Beach Access Boardwalk Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.48.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate the replacement of the dune walkovers. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the dune walkovers are open and available.

Long term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access boardwalk. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.48.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[3]

12.48.6 Costs

The total estimated cost to implement this project is $168,076. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[3] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.49 Walton County Boardwalks and Dune Crossovers: Project Description D (Dothan Beach Access Boardwalk Improvements)

12.49.1 Project Summary

The proposed Walton County Dothan Beach Access Boardwalk Improvements project would improve the Dothan Beach Access Boardwalk in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The total estimated cost of the project is $188,909.

12.49.2 Background and Project Description

The Trustees propose to improve facilities at the Dothan Beach access boardwalk in Walton County, FL (see Figure 12-4 for general location). The objective of the Walton County Dothan Beach Access Boardwalk Improvement project is to enhance and/or increase recreational beach use opportunities by improving access to the beach. The restoration work proposed includes replacing the dune walkover allowing beach visitors to access the beach.

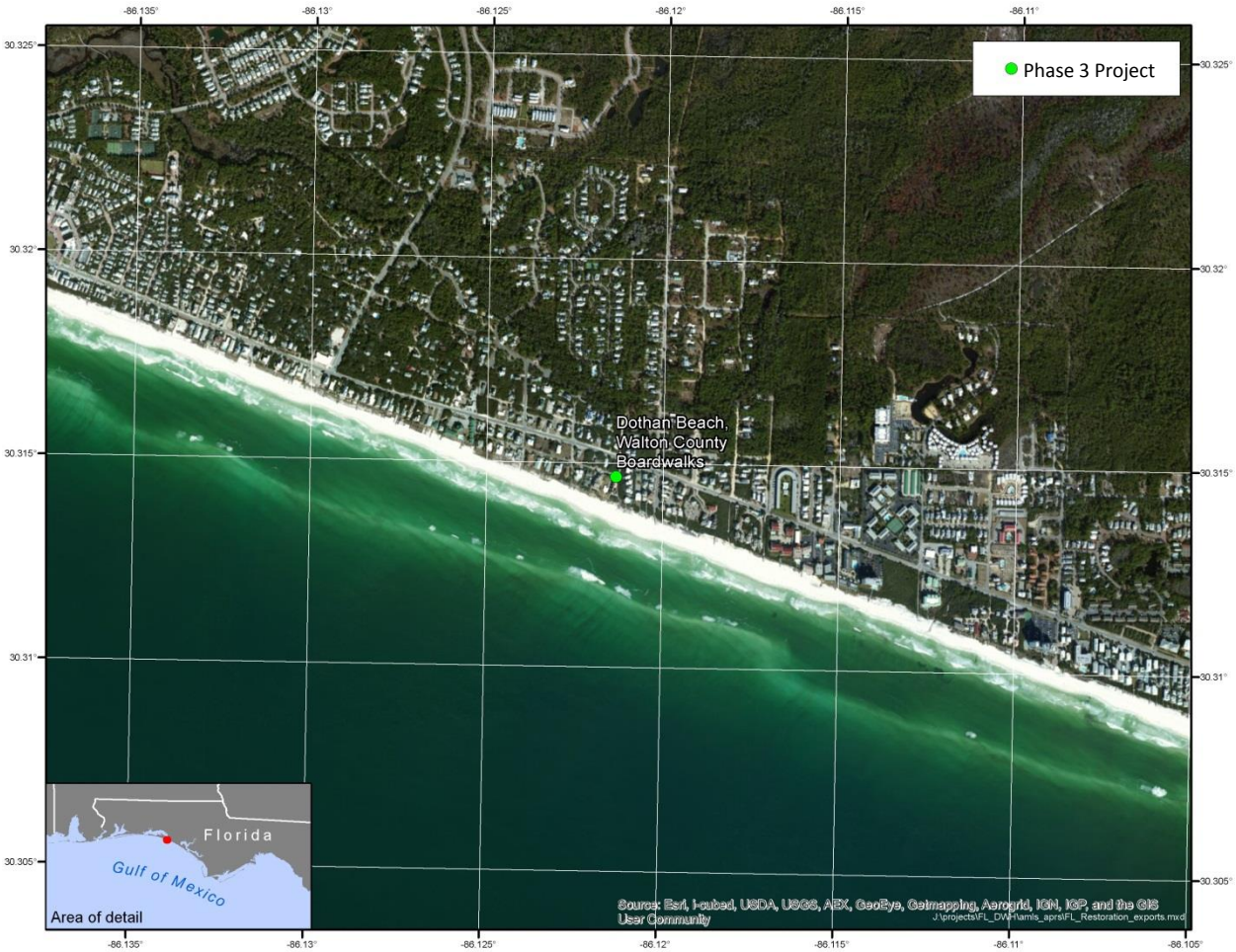


Figure 12-4. Location of Walton County Boardwalks and Dune Crossovers: Dothan Beach Access Improvements Project.

12.49.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Dothan Beach Access Boardwalk Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving access to the beach. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Dothan Beach Access Boardwalk Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.49.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate the replacement of the dune walkovers. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2)

enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the dune walkovers are open and available.

Long term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access point and boardwalk. The visitation numbers will then be provided to the Florida Department ofEnvironmental Protection.

12.49.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[4]

12.49.6 Costs

The total estimated cost to implement this project is $188,909. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[4] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.50 Walton County Boardwalks and Dune Crossovers: Project Description E (Palms of Dune Allen West Beach Access Improvements)

12.50.1 Project Summary

The proposed Walton County Palms of Dune Allen West Beach Access Improvements project would improve the Palms of Dune Allen West beach access facility in Walton County. The proposed improvements include constructing a dune walkover, allowing beach visitors to access the beach. The total estimated cost of the project is $112,109.

12.50.2 Background and Project Description

The Trustees propose to improve facilities at the Palms of Dune Allen West beach access facility in Walton County, FL (see Figure 12-5 for general location). The objective of the Walton County Palms of Dune Allen West Beach Access Improvement project is to enhance and/or increase recreational beach use opportunities by improving beach access. The restoration work proposed includes constructing a dune walkover, allowing beach visitors to access the beach.

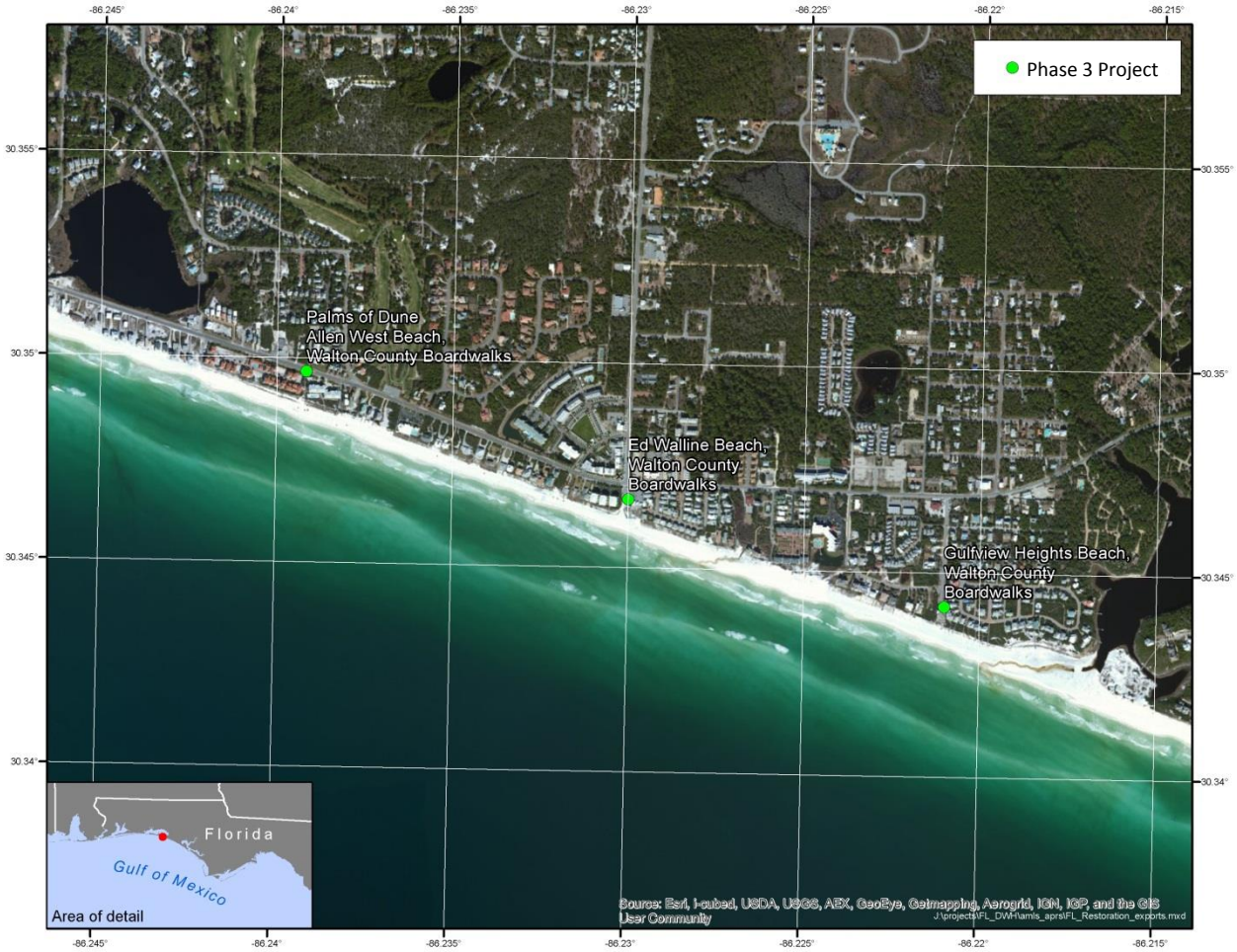


Figure 12-5. Location of Walton County Boardwalks and Dune Crossovers: Palms of Dune Allen West Beach Access Improvements Project.

12.50.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Palms of Dune Allen West Beach Access Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving beach access. This project would enhance and/or increase opportunities for the public's use and enjoyment of the nautral resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Palms of Dune Allen West Beach Access Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.50.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate construction of the dune walkovers. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the dune walkover is open and available

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access point. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.50.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[5]

12.50.6 Costs

The total estimated cost to implement this project is $112,109. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[5] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.51 Walton County Boardwalks and Dune Crossovers: Project Description F (Bayside Ranchettes Park Improvements)

12.51.1 Project Summary

The proposed Walton County Bayside Ranchettes Park Improvements project would improve the Bayside Ranchettes Park in Walton County. The proposed improvements include constructing a parking area, a picnic table, a dock, and steps into the water allowing access to the bay. The total estimated cost of the project is $68,501.

12.51.2 Background and Project Description

The Trustees propose to improve facilities at the Bayside Ranchettes Park in Walton County, FL (see Figure 12-6 for general location). The objective of the Walton County Bayside Ranchettes Park Improvement project is to enhance and/or increase recreational beach use opportunities by improving recreational opportunities at the park. The restoration work proposed includes constructing a parking area, a picnic table, a dock, and steps into the water allowing access to the bay.

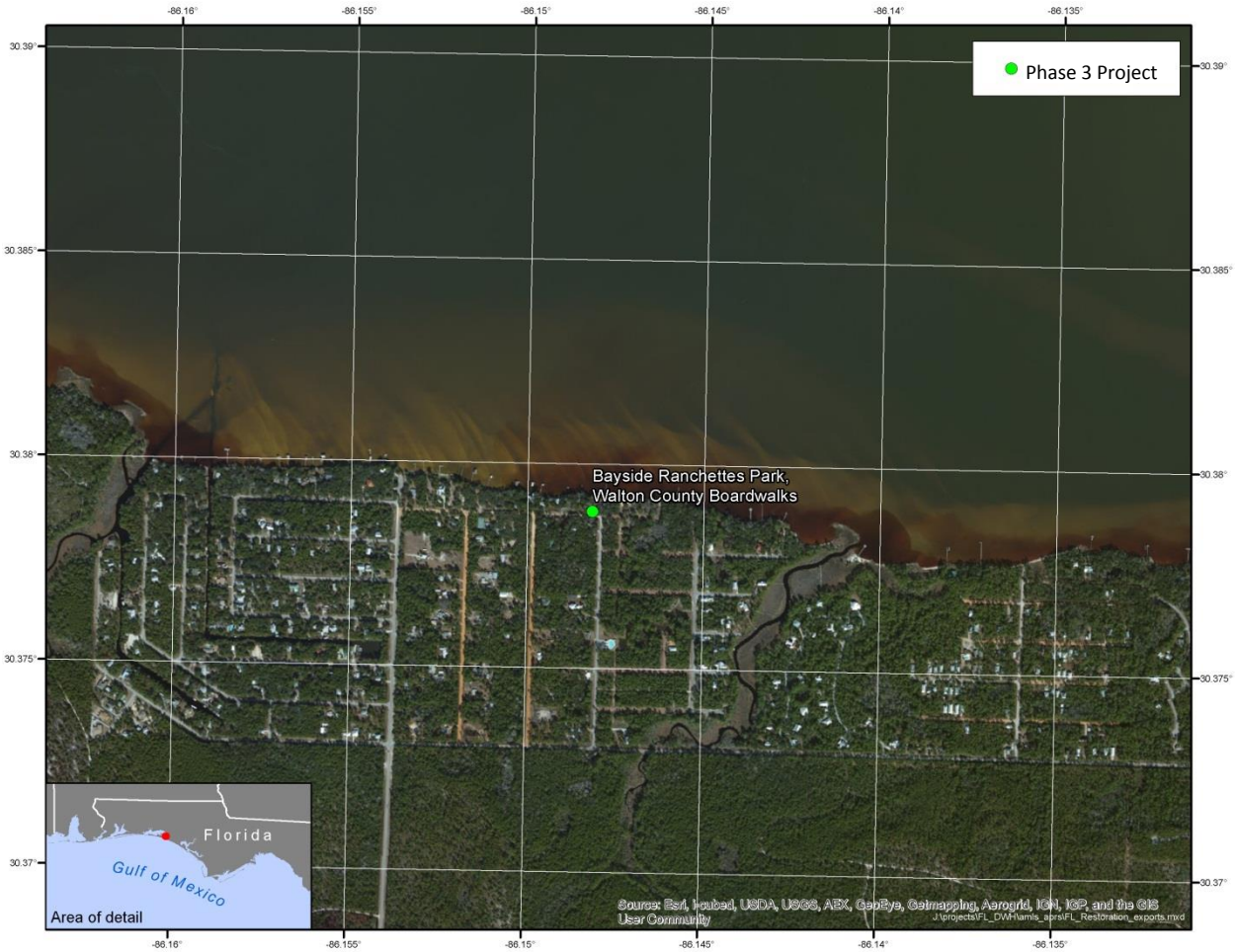


Figure 12-6. Location of Walton County Boardwalks and Dune Crossovers: Bayside Ranchettes Park Improvements Project.

12.51.3 Evaluation Criteria

This proposed project satisfies the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Walton County Bayside Ranchettes Park Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving recreational opportunities at the park. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.51, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.51 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Walton County Boardwalks and Dune Crossovers – Bayside Ranchettes Park Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.51.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. Project objective is to enhance and/or increase recreational beach use opportunities by improving recreational opportunities at the park. Performance monitoring will evaluate: 1) the construction of a parking area; 2) the construction of a picnic table; 3) the construction of a dock; and 4) the construction of steps into the water allowing access to the bay. Specific performance criteria include: 1) completion of the

construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the park is open and available.

Long term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the park. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.51.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Walton County Boardwalks and Dune Crossovers project, of which this is a component, are $1,486,552 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[6]

12.51.6 Costs

The total estimated cost to implement this project is $68,501. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[6] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.52 Walton County Boardwalks and Dune Crossovers: Environmental Review

The proposed Walton County Boardwalks and Dune Crossovers projects would construct and restore infrastructure to increase and enhance opportunities for the public to safely access coastal resources affected by the Deepwater Horizon Oil Spill.

12.52.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the *Framework Agreement for Early Restoration Addressing Injuries Resulting from the* Deepwater Horizon *Oil Spill* (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf of Mexico in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not, fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement, the Trustees released a Phase I Early Restoration Plan (ERP) in April 2012, after public review of a draft. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the *Federal Register* on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III ERP. This park improvement project was submitted as an ERP on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and Oil Pollution Act (OPA), the project meets Florida's criteria that ERPs occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

With loss of recreational opportunities for both local residents and tourists affected by the Oil Spill, the projects presented here would provide enhancements of current public access to the beach by protecting dunes and improving infrastructure at six beach access locations in Walton County, Florida.

12.52.2 Project Location

The proposed projects are in the State of Florida, Walton County. All sites are approximately 17–25 miles east of Eglin Air Force Base and 21–29 miles west of Panama City Beach, Florida. Five of the sites are on the Gulf Coast, and one site (Bayside Ranchettes Park) is on Choctawhatchee Bay, approximately 4 miles north over land of the Gulf Coast. The six projects and their specific locations are summarized below and are on Figure 12-7.

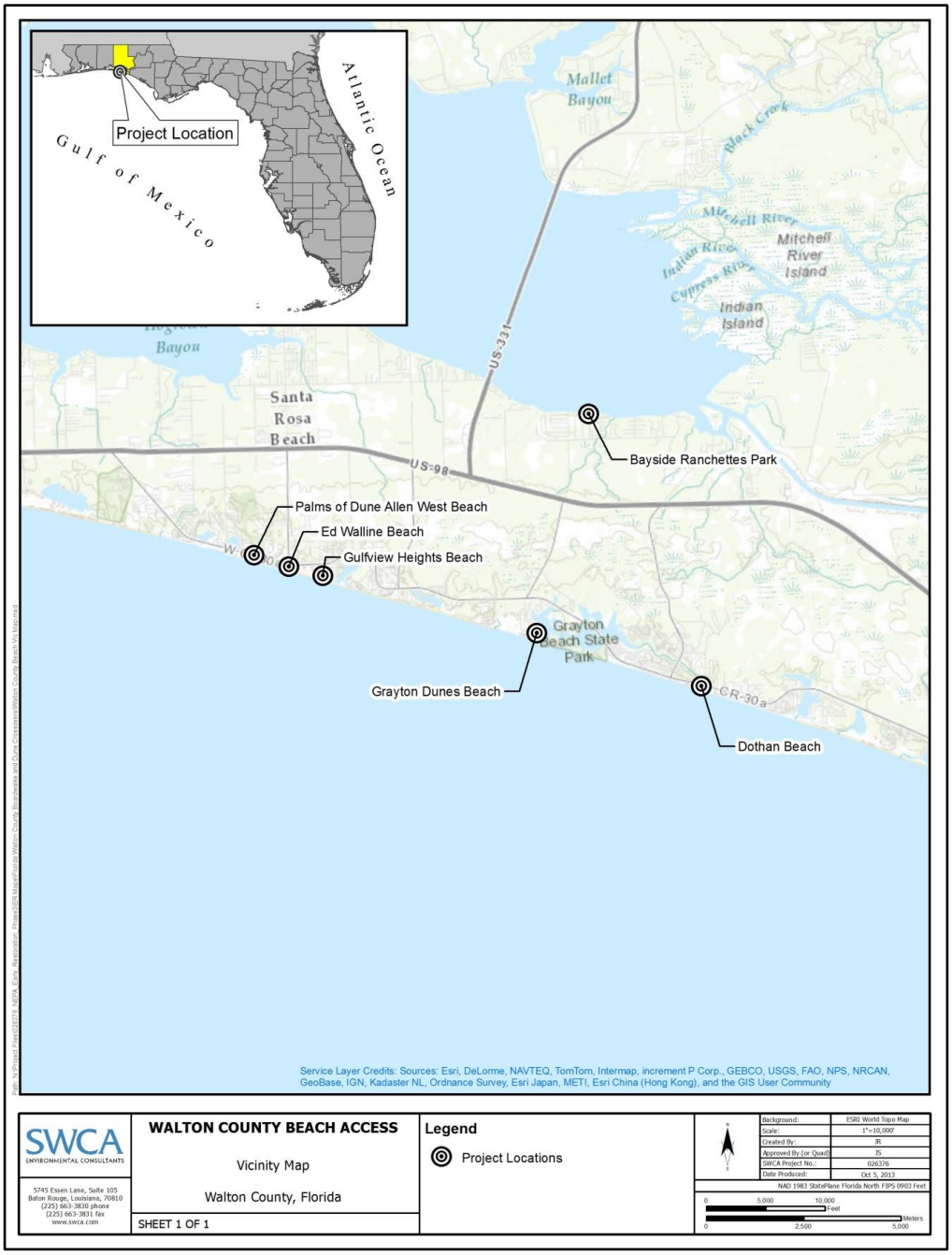


Figure 12-7. Location of Palms of Dune Allen West Beach, Ed Walline Beach, Gulfview Heights Beach, Bayside Ranchettes Park, Grayton Dunes Beach, and Dothan Beach access and infrastructure improvement projects.

12.52.2.1 Palms of Dune Allen West Beach Access Improvements

This parcel is approximately 0.5 acre of beach and dunes. It is owned by Walton County but remains undeveloped at this time. Improvement of this beach access would provide a dune walkover allowing beach visitors to access the beach. The Palms of Dune Allen site is approximately 1,300 feet east of Oyster Lake, a coastal dune lake (see Figure 12-7).

12.52.2.2 Ed Walline Beach Access Improvements

This is a regional beach access with restroom facilities and picnic pavilions. Improvement of this beach access would provide enhanced facilities by replacing the pavilions, replacing restroom fixtures, and updating all interior plumbing (see Figure 12-7).

12.52.2.3 Gulfview Heights Beach Access Improvements

This is a regional beach access with restroom facilities and picnic pavilions. Improvement of this beach access would provide enhanced facilities by replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions. The Gulfview Heights site is approximately 1,500 feet west of Draper Lake, a coastal dune lake (see Figure 12-7).

12.52.2.4 Grayton Dunes Beach Access Boardwalk Improvements

This is a regional beach access with parking and a 400-foot boardwalk. Improvement of this beach access would provide enhanced facilities by replacing the dune walkover, allowing beach visitors to access the beach. The project originates from a beachside residential area at the end of the pavement on Garfield Street and is approximately 400 feet west of the border of Grayton Beach State Park and Western Lake, a coastal dune lake (see Figure 12-7).

12.52.2.5 Dothan Beach Access Boardwalk Improvements

This is a pedestrian beach access with a boardwalk. Improvement of this beach access would provide enhanced facilities by replacing the dune walkover, allowing beach visitors to access the beach (see Figure 12-7).

12.52.2.6 Bayside Ranchettes Park Improvements

This parcel is approximately 0.25 acre on the Choctawhatchee Bay. It is owned by Walton County but remains undeveloped at this time. Improvement of this beach access would provide parking, a picnic table, a dock, and steps into the water allowing access to the bay. The proposed Bayside Ranchettes Park project is on the Choctawhatchee Bay, a coastal inlet that is connected to the Gulf of Mexico by Destin Pass near Destin, Florida. The Choctawhatchee River flows into the bay, along with several other small rivers and streams. The bay has a surface area of 130 square miles and also connects to the Santa Rosa Sound. In addition, the Mid-Bay Bridge crosses the bay, connecting the cities of Destin and Niceville, Florida (see Figure 12-7. Location of Palms of Dune Allen West Beach, Ed Walline Beach, Gulfview Heights Beach, Bayside Ranchettes Park, Grayton Dunes Beach, and Dothan Beach access and infrastructure improvement projects.).

12.52.3 Construction and Installation

Detailed construction methods and plans have not yet been developed for the new facilities, construction, and improvements to infrastructure described below. Table 12-1 summarizes each project's proposed improvements. Most of the project would be on-beach construction and improvements to existing facilities. Standard best management practices (BMP) for this type of construction would be used to minimize impacts, and are described below.

Table 12-1. Walton County Beach access infrastructure improvements detail.

PROJECT	EXISTING FACILITIES DESCRIPTION	PROPOSED IMPROVEMENTS DESCRIPTION
Ed Walline Beach Access	Restroom facilities and picnic pavilion	Replacing the pavilion, replacing restroom fixtures, and updating all interior plumbing
Gulfview Heights Beach Access	Restroom facilities and picnic pavilions	Replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions
Grayton Dunes Beach Access	Parking and a 400-foot boardwalk	Replacing the existing dune walkover
Dothan Beach Access Boardwalk	Boardwalk	Replacing existing dune walkover
Palms of Dune Allen West Beach Access	N/A - Undeveloped	Constructing new dune walkover
Bayside Ranchettes Park	N/A - Undeveloped	Creating a new parking area, adding a picnic table, and constructing a dock and steps into the waters of Choctawhatchee Bay

A range of hand tools and mechanized equipment would likely be used to complete these construction projects. This project would likely include small tools for restroom repairs. Larger equipment such as backhoes, graders, or other earthmoving equipment may be required for plumbing repairs and for enhancing dune walkover structures. Construction of parking areas and recreational facilities, as well as repairs to existing facilities, may also require use of heavy construction equipment. Activities would include grading and paving the new parking area and mechanical and manual excavation for the steps, dock, and parking areas. Excavation and construction may involve equipment such as excavators/track hoes, bulldozers, backhoes, graders, compacting equipment (roller), dump trucks, bobcats, a paving machine, rollers, forklifts, and pickup trucks; some additional hand digging may also occur. Assumed equipment usage and manpower requirements are detailed in Table 12-2 for the upland components of these projects.

Table 12-2. Assumed equipment usage and worker needs.

EQUIPMENT	NUMBER OF DAYS USED	NUMBER OF WORKER DAYS	ASSUMPTION
Dump truck	5	5	One week total for paving and excavation associated with parking, steps, and dock
Flatbed truck	8	8	One trip per week for two months to deliver materials for pavilion, dock, boardwalks, restrooms, etc.
Concrete Truck	2	2	Two days for pilings, steps, and boat dock
Pickup truck	88	88	Two pickups per day for two months
Bobcat	10	10	One week excavation and paving; one week auger use.
Grader	2	2	Two days grading
Paving machine	2	2	Two days paving
Roller	2	2	Two days paving
Track hoe	3	3	Three days excavation
Dozer	5	5	One week and grading
Forklift	8	8	One delivery per week for six months

The footprint of construction activities at most sites would remain within the footprint of existing facilities. Restroom repairs and improvements, as well as repairs or improvements to facilities such as pavilions, would likely require little or no disturbance outside of the existing public facilities. Repair and construction of dune walkover areas may require some minimal disturbance outside the footprint of existing facilities, but would be limited to the extent possible to existing developed areas. One parcel (Bayside Ranchettes Park) is currently undeveloped. Construction of public facilities, including parking, picnic area, and a dock would require disturbance of several feet of soil; the final footprint is not known. The projects would install and maintain sturdy animal-proof garbage containers to prevent the invasion of house mice and predators (cats, raccoons, fox, and coyotes) while providing a place for visitors to dispose of refuse.

Materials to be removed include old plumbing fixtures and other old restroom material, and other debris removed as part of facilities improvements. Old boardwalk and pavilion materials would be removed from areas where repairs are required. Soil would likely be removed from most sites.

Posts may be required for some repairs, including pavilion and boardwalk repairs. Pilings would likely be placed by mechanically auguring holes (with an auger mounted to a bobcat) to place pre-formed pilings or to place forms that would be filled with pumped concrete to create new pilings. The holes for the pilings would likely be approximately 1–2 feet in diameter (this is an estimate, final sizes would depend on final design requirements).

In addition, as work proceeds, the project area could be isolated by construction fencing to prevent incidental access. This fencing material would be placed by hand driving (e.g., with a sledge hammer or post driver) stakes as necessary. These stakes would likely be less than 2 inches in diameter and driven to a depth of 1–2 feet to secure the fencing.

The dune walkovers would be constructed at a height (minimum 3 feet above grade) to accommodate natural dune growth and associated vegetation and would follow the additional guidance within *Conservation Measures for Dune Walkover Construction* (USFWS, 2013). No storage of equipment or materials would occur on the beach or dunes throughout construction. No activity, except as needed to remove old walkovers, construct the new walkovers, and repair/maintain the walkovers (in subsequent years), would occur on existing healthy dunes during any time of the year.

If dunes are impacted during the proposed projects, they would be restored by planting the appropriate vegetation or installing sand fence. All dune vegetation to be used in dune restoration would be native to the specific Walton County dunes and grown from northwest Florida plant stock. If seedlings are planted, they would be at least 1 × 1 inch with a 2.5-inch pot. Vegetation would be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. Planting must be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. No irrigation lines or pipes would be installed.

Bayside Ranchettes dock construction

As part of the dock expansion at Bayside Ranchettes, up to 26 pilings could be placed to construct a 60’ by 6’ dock. (this is a new dock so no pilings need to be removed). These are expected to be 8” diameter wood pilings that would be placed through a combination of water jetting and mechanical auguring

using small workboats (e.g., Carolina skiffs) that are generally less than 20 feet long. Once the pilings are set, initial cross pieces would be placed from boats and then the dock would be built out from shore.

As part of final dock design effort, a survey of submerged aquatic vegetation (SAV) in the area would be completed. Should the site assessment for the project identify SAV in the proposed project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented. Among other elements that would result should these guidelines need to be implemented, there would requirements that pilings be placed a minimum of 10 feet apart and there would be requirements for the height of the pier and spacing of decking materials. No permanent slips will be added as part of the dock construction.

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) would be implemented and adhered to. Significant aspects of these provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

BMPs for erosion control would also be implemented and maintained at all times during upland construction to prevent siltation and turbid discharges into surface waters. Methods could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Should the parking area improvements result in an increase in the area of impermeable surface a site stormwater management plan would also be developed to control impacts from water flowing from the site to the Bay.

One of the critical elements of the effort to limit impacts associated with the project development will be the consideration of, review for, and ultimate implementation of stormwater management controls for the project. Although each project site will pose its own issues when developing the stormwater and sediment control plans for pre, during, and completion of construction plans there is a standard approach to preparing these designs characterized by the following steps, which are distinguished by their relationship to construction, that will be followed for this project:

1. Development of Pre-construction or existing conditions plans w/erosion and sediment control (E&SC) features. These pre-construction plans will illustrate what sediment control measures will be initially installed and their location in order to minimize impacts to receiving waterways when upland land disturbance activities begin. These plans will be based upon an existing site survey delineating the project boundaries, site topography, topographic features (vegetation, soil types, impervious and pervious areas, water bodies (streams and ponds), wetlands, drainage channels, existing structures, drainage basins, flow patterns and major points where stormwater enters and exits the site. The survey should extend to at least 50 feet beyond the project site and contours should depict intervals of 0.5 to 2.0 feet. The pre-construction plans should also identify phases of construction and areas that will be disturbed along with the overall limits of construction or disturbance. Sensitive areas (e.g., locations of sensitive/protected flora and fauna, wetlands, excessive slopes and unsuitable soils) should also be identified. Taking all the above information from the survey into consideration the designer will designate the locations

and describe the structural controls to be installed in order to minimize erosion and control sediment from reaching adjacent receiving waters and wetlands. The most important aspect of the pre-construction drawings is to identify where water flows through the project site and where critical discharge points are located. The nature and location of best management practices (BMP's) that will then be emplaced and incorporated prior to construction are determined from these drawings. BMP's commonly identified/used include: placing combinations of silt screens, hay bales, fiber logs, and temporary vegetation down gradient of areas to be disturbed. Other sediment and stormwater control options include installing sediment ponds or traps or diversion berms and conveyance channels to redirect runoff and sediment from receiving waters.

2. Development of During Construction grading plans. These plans may be incorporated with the pre-development plans when feasible for a simple site but otherwise will be developed for depicting E&SC measures to be employed during grading operations. As the project progresses through its various phases of construction it may be necessary to adjust the location of structural E&SC measures or to include additional ones. These plans will show areas for stockpiling top soils and other materials and how they are to be contained (silt fencing, berms etc.), equipment storage areas and refueling areas (if allowed) with protective measures to be employed such as containment berms or absorbent material for possible spills. These plans may also include final stormwater control structures such as retention/detention ponds. These plans will also include requirements for inspection and maintenance of the BMP's such as inspections and repair/replacement, if necessary, after every storm event. These plans will point out to the contractor critical containment contours to ensure that optimal treatment of runoff from the disturbed areas is realized and minimal impact occurs to receiving waters.

3. Final Grading or Construction Plans. These plans will show how the site is to look upon completion of construction, final grades, stormwater controls and final stabilization of disturbed lands. These plans will include final landscaping (sod, mulching, plants (native trees and shrubs), ditch or swale lining utilizing sod mats, ditch breaks etc., and slope stabilization. Final grades on all impervious areas such as parking, entry and exit drives will designed so as to reduce runoff velocity and direct runoff into drainage conveyance systems and finally into treatment ponds dry or wet type depending on groundwater depths where the majority of runoff is treated before being released into the receiving waters. The design capacity of the treatment ponds will be based upon SCS curves for the required design storm event. Release of stormwater from the sites will be at pre-construction rates. Outlet controls BMP's may include rip rap installation where necessary to control erosion at exit points. Most boat ramp installations will also include the installation of trench drains at the top the ramps to capture runoff from the drive areas and divert it to treatment areas or pass it through a filter "sock". Projects that have sufficient budgets and suitable site conditions may also consider the placement of pervious concrete in lieu of asphalt or concrete driving surfaces. The final grading plans will describe when and where removal of BMP construction sediment control structures (silt fencing, diversion berms etc.) is to be done i.e. establishment of 70% of permanent vegetation. The final part of the stormwater management system is the development of the monitoring or maintenance plan which will describe the frequency of inspection (after every major storm, x's per year etc.) and maintenance (removing sediment from ponds and swales, cleaning or replacing sand filter beds,

replacing sediment “sock” in trench drain) and what actions to take when the system has been reduced in efficiency or has failed.

12.52.3.1 Best Management Practices and Conservation Measures

The following conservation measures for dune walkover construction would be implemented at each site:

- **Boardwalks**: A dune walkover would be constructed at a height (minimum 3 feet above grade) to accommodate natural dune growth and associated vegetation.
- **Equipment storage**: No storage of equipment or materials would occur on the beach or dunes throughout the entire year.
- **Dune protection**: No activity, except as needed to repair/replace/construct the walkovers, would occur on existing healthy dunes during any time of the year. Activities in this area would be limited to maintenance and restoration of the habitat. If dunes are impacted, they would be restored by planting the appropriate vegetation or installing sand fence. Appropriate signs would be used to designate and indicate the purpose of the conservation area, if necessary.
- **Sand fence**: Minimal use of sand fence would be encouraged. When used, the fence would be used for restoration of dune blowouts. Post and rope are preferred for beach visitor access, pedestrian traffic control, and wildlife exclusion zones (e.g., bird wintering areas). If used for dune restoration, the fence would be placed in a sea turtle–compatible design and be made of biodegradable material.
- **Native landscaping**: The habitat quality of all non-developed areas would be maximized and the habitats would be connected by landscaping with native dune plants. The landscaping plan would be reviewed and approved by the U.S. Fish and Wildlife Service.
- **Dune vegetation**: All dune vegetation used in dune restoration would be native to the specific Walton County dunes and grown from northwest Florida plant stock. Vegetation would be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. Planting must be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. No irrigation lines or pipes would be installed.
- **Refuse**: Sturdy animal-proof garbage containers would be installed and maintained to prevent the invasion of house mice and predators (cats, raccoons, fox, and coyotes).
- **Lighting**: No lighting would be used on the dune walkover. Any lighting for pavilions or other features would be wildlife friendly and will comply with Walton County’s Wildlife Conservation Zone Lighting ordinance using best available technology.

In addition, Rule 62B-41.007, Fla. Admin. Code, which is titled Design, Siting, and Other Requirements, requires additional measures to protect beaches and dunes, which would be adhered to in the development of this project, as described below.

To protect the environmental functions of Florida’s beaches, only beach compatible fill would be placed on the beach or in any associated dune system. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Such material would be predominately composed of carbonate, quartz, or similar material with a particle size distribution ranging from 0.062 millimeters (mm) (4.0^{ϕ}) to 4.76 mm (-2.25^{ϕ})

(classified as sand by the Unified Soils or the Wentworth classification). The material should be similar in color and grain size distribution (sand grain frequency, mean and median grain size and sorting coefficient) to the material in the existing coastal system at the disposal site, should not result in cementation of the beach, and should not contain the following:

- Greater than 5%, by weight, silt, clay, or colloids passing the #230 sieve (4.0$^{\phi}$)
- Greater than 5%, by weight, fine gravel retained on the #4 sieve (2.25$^{\phi}$)
- Coarse gravel, cobbles, or material retained on the 3/4-inch sieve in a percentage or size greater than what is found on the native beach
- Construction debris, toxic material, or other foreign matter

If rocks or other non-specified materials appear on the surface of the filled beach in excess of 50% of background in any 10,000-square-foot area, then surface rock should be removed from those areas. These areas would also be tested for subsurface rock percentage and remediated as required. If the natural beach exceeds any of the limiting parameters listed above, then the fill material would not exceed the naturally occurring level for that parameter (Florida Administrative Rule 62B-41.007).

In addition to construction BMPs and dune walkover conservation measures, four of the sites (Grayton Dunes, Dothan Beach, Palms of Dune Allen West, and Bayside Ranchettes) are within the Coastal Construction Control Line (CCCL). An essential part of Florida's coastal management program, the CCCL program is designed to protect the coastal system from improperly sited and designed structures that can erode, destabilize, or destroy the beach and dune system, with the overall goal of balancing development and the health of these natural systems (FDEP 2013a). The CCCL is defined as "that portion of the beach-dune system subject to severe fluctuations based on a 100-year storm surge, storm waves, or other forces such as wind, wave, or water level changes" (FDEP 2012a). The following environmental-related permit obligations/best practices would be followed for the above referenced projects:

1. The contractor would use extreme care to prevent any impacts to the beach and dune system, marine turtles, their nests and habitat, or adjacent property and structures.
2. The construction would not result in removal or destruction of native vegetation, which would either destabilize a frontal, primary, or significant dune or cause a significant impact to the beach and dune system from increased erosion by wind or water.
3. The construction would not direct discharges of water or other fluids in a seaward direction and in a manner that would result in significant impacts. For the purposes of this rule section, construction would be designed to minimize erosion-induced surface-water runoff within the beach and dune system and to prevent additional seaward or off-site discharges associated with a coastal storm event.
4. Construction traffic would not occur and building materials would not be stored on vegetated areas seaward of the control line unless specifically authorized by the permit.
5. The contractor would not disturb existing beach and dune topography and vegetation except as expressly authorized in the permit, and would restore any disturbed topography or vegetation prior to completing the project.
6. All fill material placed seaward of the control line would be sand, which is similar to that already existing on the site in both coloration and grain size.

7. The construction would not result in removal or disturbance of in situ sandy soils of the beach and dune system to such a degree that a significant impact to the beach and dune system would result from either a) reducing the existing ability of the system to resist erosion during a storm or b) lowering existing levels of storm protection to upland properties and structures.
8. If not specifically authorized elsewhere in the permit, no operation, transportation, or storage of equipment or materials are authorized seaward of the dune crest or rigid coastal structure during the marine turtle nesting season. The marine turtle nesting season is May 1 through October 31 (FDEP 2012b).

Lastly, Standard Manatee Conditions for In-Water Work (USFWS 2011) would apply to the Bayside Ranchettes Park project, which includes building a dock and steps into the water. The permittee would comply with the following conditions intended to protect manatees from direct project effects:

- All personnel associated with the project would be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and impact to manatees. The permittee would advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees that are protected under the Marine Mammal Protection Act, the Endangered Species Act (ESA), and the Florida Manatee Sanctuary Act.
- All vessels associated with the construction project would operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a 4-foot clearance from the bottom. All vessels would follow routes of deep water whenever possible.
- Siltation or turbidity barriers would be made of material in which manatees cannot become entangled, would be properly secured, and would be regularly monitored to avoid manatee entanglement or entrapment. Barriers would not impede manatee movement.
- All on-site project personnel would be responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, would be shut down if a manatee(s) comes within 50 feet of the operation. Activities would not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapse if the manatee(s) has not reappeared within 50 feet of the operation. Animals would not be herded away or harassed into leaving.
- Any collision with or harm to a manatee would be reported immediately to the FWC Hotline at 1-888-404-3922.
- Collision and/or harm would also be reported to the U.S. Fish and Wildlife Service (USFWS) in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com.
- Temporary signs concerning manatees would be posted before and during any in-water project activities. All signs would be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC would be used. One sign that reads "Caution: Boaters" would be posted. A second sign measuring at least 8 ½ × 11 inches explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations would be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee.

- The project would adhere to all applicable permit conditions and federal, state, and local requirements for the protection of marine mammals during construction (FWC 2011b).

12.52.3.2 Construction Timeframe

Proposed construction work is expected to take 2–3 months to start and 2 months to complete. The following proposed schedule is planned:

- Design Complete: Summer 2014
- Permitting Complete: DEP permits would be obtained once funding is secured. FDEP permits would not be required for Gulfview Heights, and Ed Walline sites, because they are landward of the CCCL.
- Contract Bid: Summer 2014
- Construction Start: Summer 2014
- Construction Compete: Fall 2014

12.52.4 Operations and Maintenance

Long-term monitoring and maintenance of the improved facilities would be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post construction maintenance is not included in the value for the project cost and would be accomplished by Walton County.

As part of the project cost, monitoring would be conducted to ensure project plans and designs are correctly implemented. Performance monitoring would evaluate the construction of the boardwalks, dune walkovers, dock and steps, restrooms, and picnic pavilion to ensure successful completion as designed and permitted. Following the construction performance monitoring period, human use and activity at the site would be monitored through the local government's regular maintenance activities. This assessment would not be directly undertaken by the Florida Trustees.

12.52.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.52.5.1 No Action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.52.5.2 Physical Environment

12.52.5.2.1 Geology and Substrates

Affected Resources6

According to the *Geologic Map of Florida*, the Ed Walline, Gulfview Heights, Grayton Dunes, Dothan Beach, and Palms of Dune Allen West sites are on the Quaternary system, Holocene series, Holocene Sediments stratigraphic unit. This stratigraphic unit consists of quartz sands, carbonate sands and muds, and organics. These sediments occur near the present coastline, typically at elevation 5 feet above mean sea level or lower (FDEP 2013b; FDEP 2013c).

The Bayside Ranchettes Park site is on the Quaternary system, Pleistocene/Holocene series, Undifferentiated Quaternary Sediments stratigraphic unit. This stratigraphic unit consists of siliciclastics, organics, and freshwater carbonates. The siliciclastics are light gray, tan, brown to black, unconsolidated to poorly consolidated, clean to clayey, silty, unfossiliferous, variably organic-bearing sands to blue green to olive green, poorly to moderately consolidated, sandy, silty clays. Gravel is occasionally present. Organics occur as plant debris, roots, disseminated organic matrix, and beds of peat. Freshwater carbonates, or marls, are buff-colored to tan, unconsolidated to poorly consolidated, fossiliferous carbonate muds. Sand, silt, and clay may be present in limited quantities, and these carbonates often contain organics. The dominant fossils in the freshwater carbonates are mollusks (FDEP 2013b).

The Department of Environmental Protection, Bureau of Beaches and Coastal Systems identifies and manages beaches of the state that are critically eroding. The Ed Walline, Gulfview Heights, Grayton Dunes, Dothan Beach, and Palms of Dune Allen West sites are all along these state-designated, critically eroded beaches. A critically eroded area is a "segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost" (FDEP 2012a). The critically eroded areas at the Palms of Dune Allen West, Ed Walline, and Gulfview Heights sites threaten development and County Road 30A, whereas those at Grayton Dunes and Dothan Beach only threaten development (FDEP 2012a).

A sinkhole is a closed depression in the land surface that is formed by surficial solution or by subsidence or collapse of surficial materials from the solution of near-surface limestone or other soluble rocks. Sinkholes are a natural and common geologic feature in areas underlain by limestone and other rock types soluble in natural water; they are one of the predominant landform features of Florida. The state has been classified into four areas of sinkhole occurrence. Coastal Walton County is categorized as Area IV with a carbonate rock cover more than 200 feet thick. Area IV consists of cohesive sediments interlayered with discontinuous carbonate beds. Sinkholes are very few, but several large-diameter, deep sinkholes occur. Cover-collapse sinkholes dominate in Area IV, which occur when a solution cavity develops in limestone to such a size that the overlying cover material can no longer support its own weight. Activities that promote sinkholes include over-withdrawal of groundwater, drilling water wells, and creating artificial surface water ponds (FDEP 2013d).

Environmental Consequences

Mechanized equipment and hand tools would be used to complete the repairs to current infrastructure and to construct the restroom facility, dune walkovers, and expansion of parking at the sites. Permit-required erosion control measures would be implemented at all of the proposed sites, and contractors would use BMPs to control erosion and minimize compaction.

Some excavation of soils would occur; however, adverse impacts to geology and substrates in the form of erosion and/or compaction would be minor because disturbance would be detectable. Impacts would also be short term and localized because of the limited construction period and footprint and due to adherence to the construction BMPs outlined in the Construction and Installation section above. There would be no long-term changes to local geology, soils, and sediments due to erosion and/or compaction associated with each project because of the limited construction period and footprint. Erosion and/or compaction may occur in localized areas, but would be minimized by the erosion control BMPs specified in the Construction and Installation section. Sinkholes are not expected to be an issue during project construction based on the Area IV classification.

12.52.5.2.2 Hydrology and Water Quality

Affected Resources

Watersheds

Northwest Florida has seven major watersheds, all of which have been identified as priorities under the Surface Water Management and Improvement (SWIM) program. Water quality protection is the underlying goal of SWIM, along with the preservation and restoration of natural systems and associated public uses and benefits (NWFWMD 2011). According to the Northwest Florida Water Management District, the Ed Walline, Gulfview Heights, Palms of Dune Allen West, and Bayside Ranchettes Park (on Choctawhatchee Bay) sites are part of the Choctawhatchee River and Bay watershed system, whereas the Grayton Dunes and Dothan Beach sites are part of the St. Andrew Bay watershed system. The Bayside Ranchettes Park sits on the shoreline adjacent to Choctawhatchee Bay.

The Choctawhatchee River and Bay watershed system encompasses approximately 3.5 million acres, 42% of which are in the state of Florida (the rest is in Alabama). Walton County is dominated by this watershed, aside from a small portion in the northeast part of the county. Made up primarily of the Choctawhatchee River, its tributaries, and the bay, the watershed system provides an array of aquatic, wetland, environmental, and human benefits over diverse ecological systems. Major tributaries of the Choctawhatchee River include the Pea River and Little Choctawhatchee River, as well as Holmes, Wrights, Bruce, and Pine Log Creeks. The waterways are primarily used for transportation, fishing, military uses, outdoor recreation, tourism, aesthetic qualities, and waste disposal. The system has one direct opening from its bay to the Gulf of Mexico at East Pass near Destin, Florida. Broad issues for the Choctawhatchee River and Bay system include urban stormwater runoff and other nonpoint sources of pollution, widespread sedimentation, domestic and industrial wastewater discharges, and habitat loss and degradation. Cumulatively, these impacts have degraded the productivity of the river and bay system and diminished the benefits it provides (NWFWMD 2002).

The St. Andrew Bay watershed system is the only major estuarine drainage basin entirely within the Florida panhandle; it encompasses approximately 750,000 acres in six Florida counties. The watershed contains St. Andrew Bay (east, west, and north bays), St. Joseph Bay, Deer Point Reservoir, and their respective surface water basins. Only 4% of the watershed is in Walton County. This part of the watershed drains into several coastal dune drainages. The residential population in this area has grown in the past two decades, with the resulting challenge of increased human land use, non-point source pollution, and habitat loss and degradation. Land development tends to cause stream channelization, increase in impervious surface area, erosion, and habitat loss. Resulting hydrologic impacts include increased frequency and severity of flooding, lowered water tables, and reduced streamflow in dry weather (NWFWMD 2000).

Coastal Dune Lakes

Walton County's 26-mile coastline is home to 15 named coastal dune lakes. Coastal dune lakes are extremely rare around the world and only occur along the Gulf Coast and in the state of Oregon in the United States. These unique geographic features share an intermittent connection with the Gulf of Mexico, acting as outfalls into the Gulf during periods of overflow/flooding while allowing saltwater and marine life in during high tides and storm surges. Walton County maintains protection of their coastal dune lakes through monitoring partnerships, cooperation with state and federal agencies, and via meetings of the Coastal Dune Lakes Advisory Board (Walton County 2013a). The Palms of Dune Allen West, Gulfview Heights, and Grayton Dunes sites are all within 1,500 feet of a coastal dune lake. The Palms of Dune Allen site is approximately 1,300 feet east of Oyster Lake, Gulfview Heights is approximately 1,500 feet west of Draper Lake, and Grayton Dunes is approximately 500 feet west of Western Lake.

Impaired Waters

Impaired waters are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. In 2002, 32% of Florida's lakes and 84% of its bays were impaired. The Choctawhatchee Bay is listed as impaired by the EPA for fecal coliform and mercury in fish tissue in its lower segment, and for mercury in fish tissue for its middle and upper segments. The Bayside Ranchettes Park site is in the upper segment. Total maximum daily loads (TMDLs) have not yet been adopted for these locations. No other lakes in the project sites are impaired (EPA 2010).

Wetlands

According to the National Wetland Inventory, the six proposed project sites do not appear to overlap any wetlands, but they are surrounded by various types of wetlands, mainly freshwater wetlands upland of the proposed sites (Figure 12-8,

Figure 12-9,

Figure 12-10).

Floodplains

According to Federal Emergency Management Agency (FEMA) flood information, all six proposed project sites are in a Special Flood Hazard Areas inundated by 100-year floods (Walton County 2013c).

Environmental Consequences6

With required mitigation in place, anticipated impacts to water quality, such as erosion caused by construction, would be minimal and short in duration at all proposed project sites. This project would use the construction BMPs outlined in the Construction and Installation section to minimize erosion-related construction impacts as well as impacts to surface water, groundwater, and wetlands. Contractors would take special precautions when working within the CCCL and around coastal dune lake habitats. Floodplain status would not be affected. Adverse impacts to hydrology and water quality would therefore be minor and shore term.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to implementation of the Bayside Ranchettes project. The remaining proposed projects are not anticipated to require authorization by the UUSACE pursuant CWA/RHA.

12.52.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS have been set for six common air pollutants (also known as criteria pollutants), consisting of particle pollution or particulate matter, ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead. Particulate matter is defined as fine particulates with a diameter of 10 micrometers or less (PM_{10}) and fine particulates with a diameter of 2.5 or less ($PM_{2.5}$). When a designated air quality area or airshed in a state exceeds a NAAQS, that area may be designated as a “nonattainment” area. Areas with levels of pollutants below the health-based standard are designated as “attainment” areas. To determine whether an area meets the NAAQS, air monitoring networks have been established and are used to measure ambient air quality. The EPA also regulates 187 hazardous air pollutants (HAPs) that are known or suspected to cause cancer or other serious health effects.

Air quality within the Florida panhandle is in attainment with the NAAQS (EPA 2013).

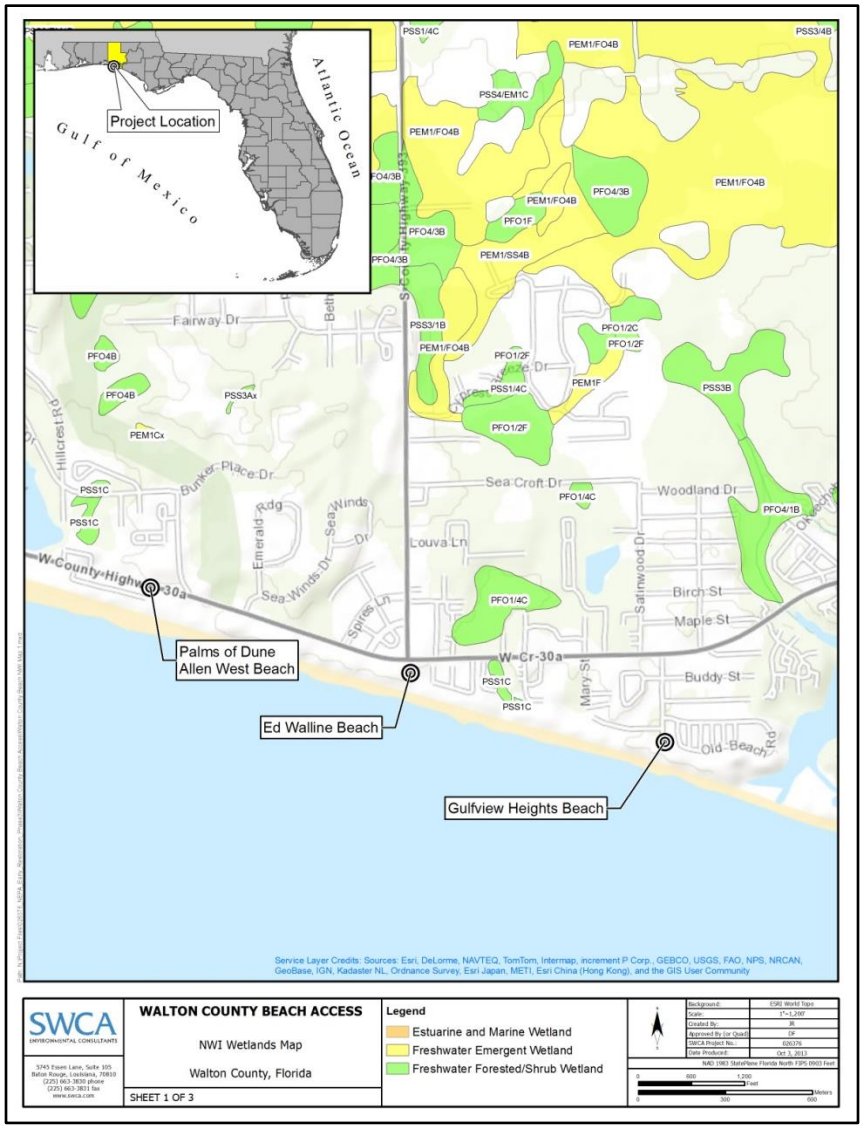


Figure 12-8. Wetlands near Palms of Dune Allen West, Ed Walline, and Gulfview Heights project sites.

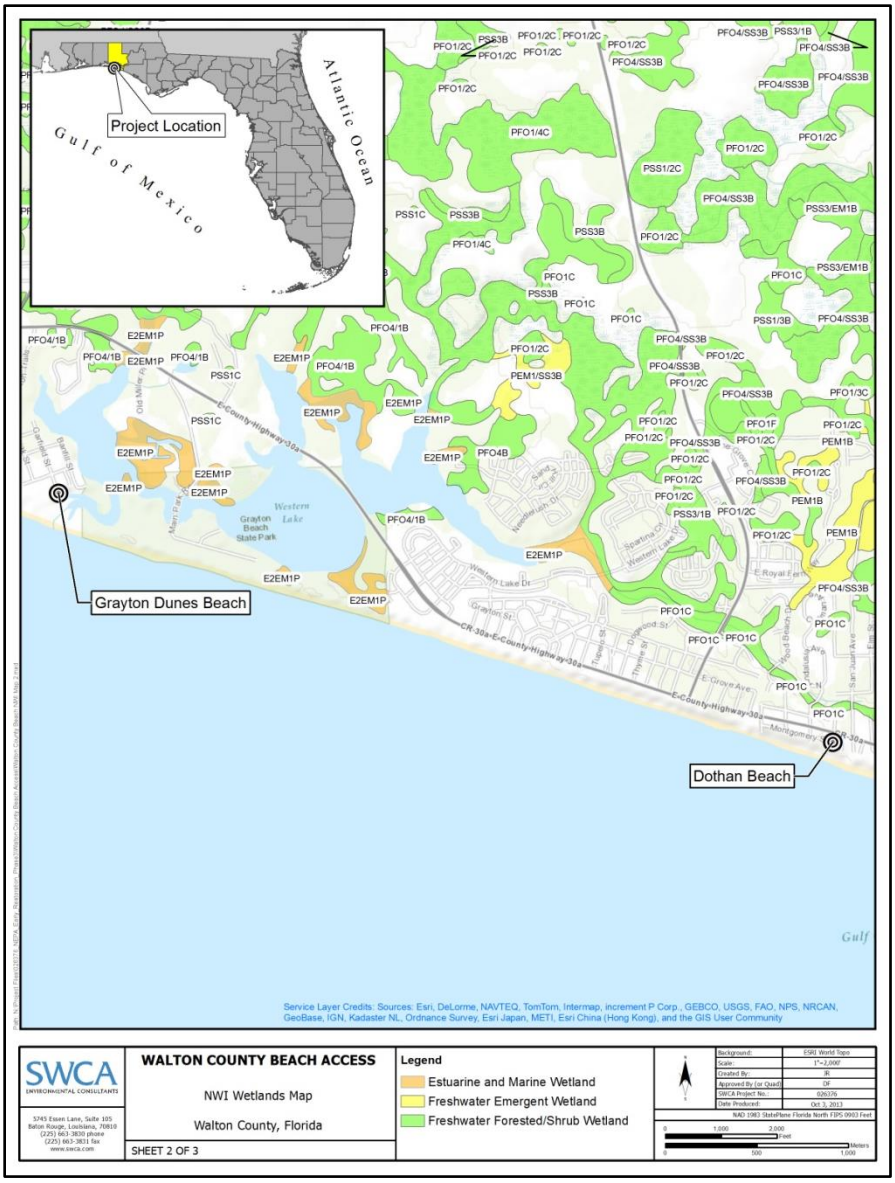


Figure 12-9. Wetlands near Grayton Dunes Beach and Dothan Beach project sites.

Figure 12-10. Wetlands near Bayside Ranchettes Park project site.

Greenhouse Gases

Gases that trap heat in the air are called greenhouse gases (GHGs). The primary GHGs are carbon dioxide (CO_2), methane, nitrous oxide, and fluorinated gases. Over the past century, human activities have released into the atmosphere large amounts of GHGs, which are contributing to global warming. Global warming is defined as the ongoing rise in global average temperature near the Earth's surface. Global warming is causing climate patterns to change.

According to the EPA, the average annual temperature in the southeast portion of the United States has increased by approximately 2.0°F since 1970. Winters, in particular, are getting warmer, and the average number of freezing days has decreased by 4–7 days per year since the mid-1970s. Most areas are getting

wetter; autumn precipitation has increased by 30% since 1901 (EPA 2013). In many parts of the region, the number of heavy downpours has increased. Despite the increases in fall precipitation, the area affected by moderate and severe drought has increased since the mid-1970s (EPA 2013).

Average annual temperatures in the region are projected to increase from 4°F to 9°F by 2080. Hurricane-related rainfall is projected to continue to increase. Models suggest that rainfall will arrive in heavier downpours with increased dry periods between storms. These changes would increase the risk of both flooding and drought. The coasts will likely experience stronger hurricanes and sea level rise. Storm surge could present problems for coastal communities and ecosystems (EPA 2013).

Total GHG emissions in the state of Florida from 1990 to 2007 have increased at an average rate of 2.1% per year. Total GHG emissions in 2007 were 290 million metric tons of CO_2 equivalent ($MMTCO_2E$). In 2007, 91% of GHG emissions in Florida were CO_2 emissions (FDEP 2010).

Environmental Consequences

Project implementation would require the use of heavy mechanized equipment which would lead to temporary emissions (e.g., criteria pollutants, HAPs, GHGs) from the operation of construction vehicles and equipment. Any air quality impacts that occur would be measurable but minor due their localized nature, short-term duration, and the small size of the project. BMPs would be employed to prevent, mitigate, and control potential air pollutants during project implementation, such as following speed limits and prohibiting idling unless necessary to run equipment. No air quality–related permits would be required because of the minimal levels of emissions.

The major pieces of construction equipment that would contribute to GHG emissions for these projects are listed in Table 12-3, along with their estimated emissions. GHG emissions from the remaining (hand) equipment would be negligible. The emissions estimates are based on the operating assumptions in Table 12-2, and include emissions from all of the sic proposed projects.

Based on the estimates in Table 12-3, the project would generate approximately 75 metric tons of GHGs over the duration of all phases. The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:

- Shut down idling construction equipment, if feasible.
- Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
- Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
- Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.

The project would have short-term, minor impacts but no long-term impacts on GHG emissions. Mitigation measures would minimize GHG emissions.

Table 12-3. Estimated greenhouse gas impacts of the proposed projects for major construction equipment.

EQUIPMENT DESCRIPTION	TOTAL HOURS USED	CO_2 FACTOR-MT/100 HOURS	CO_2 (MT)	CH_4 FACTOR-MT/100HRS	CH_4 (MT)	N_2O FACTOR-MT/100 HOURS	N_2O (MT)	TOTAL CO_2 (MT)
Dump trucks/flatbed truck	104	1.70	1.8	0.50	0.5	7.20	7.5	9.8
Concrete trucks	16	1.70	0.3	0.50	0.1	7.20	1.2	1.5
Pickup trucks	704	1.10	7.7	0.35	2.5	4.40	31.0	41.2
Bobcat (bare and with auger mount)	80	2.65	2.1	0.90	0.7	10.60	8.5	11.3
Moto grader	16	2.25	0.4	0.65	0.1	1.08	0.2	0.6
Paving machine	16	2.00	0.3	0.50	0.1	8.00	1.3	1.7
Rollers	16	2.00	0.3	0.5	0.1	8.00	1.3	1.7
Track hoe (w/ bucket/ thumb or vibratory attachments)	24	2.55	0.6	0.85	0.2	10.20	2.4	3.3
Dozer	40	2.25	0.9	0.65	0.3	1.08	0.4	1.6
Forklift	64	2.25	1.4	0.65	0.4	1.08	0.7	2.5
Total	**1,080**							**75**

mt = metric tonnes

At the completion of the project, visitor use (and therefore vehicle use) could increase due to the improved access and facilities. Increased exhaust emissions could affect air quality over the long term. However, impacts to air quality are expected to be minor because 1) management actions could be taken if necessary to limit park visits, 2) they would be negligible in the context of the total number of miles travelled in the regional airshed, and 3) because vehicles would likely be parked for the duration of their visit and therefore only producing emissions when coming and going from the site.

12.52.5.3 Noise

Affected Resources

Noise can be defined as unwanted or nuisance sound. The Noise Control Act of 1972 (42 USC 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. Amplitude is the magnitude of a sound and is usually expressed in decibels (dB), a dimensionless ratio of sound pressure to that of a reference pressure. The A-weighted decibel (dBA) is the adjusted unit of sound used to describe the human response to noise from industrial and transportation sources. The threshold of human hearing is 0 dBA. A 3-dBA increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-4 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-4. Typical noise levels for common sources.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Jet take-off (at 25 meters)	150
Rock-and-roll band	110
Jet flyover at 1000 feet	100
Truck at 50 feet	80
Gas lawn mower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from U.S. Department of Energy (1986); Purdue 2013.

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and the distance of the receptor from noise sources. Existing sources of noise in the project area are from nearby residential activities (e.g., lawn care), traffic on nearby roads and highways, overhead aircraft, and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Sources of noise in the project sites include flight activity coming out of Eglin Air Force Base, which sits on the west edge of Choctawhatchee Bay, residences located around the sites, boats and other watercraft on the Gulf of Mexico and in Choctawhatchee Bay, and car and truck traffic. Noise-sensitive receptors in the project sites include residences around the sites, recreational users, and wildlife. There are currently residences in and around each of the sites, some as close as 25 feet.

Environmental Consequences

Instances of increased noise would occur during the project and construction activities at each of the six sites. Construction activities, including use of heavy equipment such as graders and backhoes and smaller hand-held tools such as saws and nail guns, would cause an increase in noise during the day for the duration of construction when heard at noise-sensitive receptors near the sites. Construction equipment noise is known to disturb fish, marine mammals, and nesting shorebirds. Construction noise would also negatively affect local residents in areas near project construction activities.

Standard state contract provisions include restricting work to weekdays from normally 7am to 7pm unless in a hospital or strictly residential area. Contractors are normally not allowed to work outside these limits unless it is for safety, traffic, or highly restricted schedules, and then it must be by permission. In addition, state contracts require that all equipment used on-site must be properly muffled and in good repair. As a result, noise impacts are expected to be minor and short term. The noise impacts would be short term because the construction period is not anticipated to last more than 2 months at each site and minor because of the temporary nature of the construction noise and state-required construction BMPs. Negative impacts to the soundscape would be of a level that is likely to attract visitor and neighbor attention but not cause changes in visitor or resident activities.

After completion of the project, the soundscape would return to pre-project levels. The potential for increased vehicle traffic exists due to the improved access and facilities at each site, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from traffic, beach use, picnicking, and other recreational activities would remain minor due to the small footprint of each site.

12.52.5.4 Biological Environment

12.52.5.4.1 Living Coastal and Marine Resources

The Gulf of Mexico is one of the nation's most valuable ecosystems. Florida's barrier islands, estuaries, coral reefs, beaches, seagrass meadows, coastal wetlands, and mangrove forests are world-renowned natural resources and attractions. These habitats provide a range of ecosystem services, including fisheries, wildlife-related activities, food production, energy production, infrastructure protection, and recreational opportunities (Gulf Coast Ecosystem Restoration Task Force 2011). In Walton County, beach and dune systems are an integral part of the coastal system and represent one of the most valuable natural resources in Florida, providing protection to adjacent upland properties, recreational areas, and habitat for wildlife.

Affected Resources

The Florida Gap Project uses the recently enacted U.S. National Vegetation Classification System to classify its vegetation map of the state of Florida. The land cover mapping technique developed by the Florida Fish and Wildlife Cooperative Unit synergizes existing geospatial information with current Landsat imagery and ground-truthed data (Florida Fish and Wildlife Cooperative Unit 2000).

According to Florida's GAP Land Cover GIS data, the Palms of Dune Allen West, Ed Walline, and Gulfview Heights sites are dominated by a mix of sand/beach and urban land cover classes (a mix of urban, open, and residential land types). Additional land cover classes that are identified as existing in these project sites, though less prevalent, include cover classes such as gallberry/saw palmetto shrubland compositional group, swamp forest ecological complex, sand pine forest, and coastal strand. The Palms of Dune Allen West and Ed Walline sites sit on the sand/beach, which is dominant, with urban complex immediately to the north; whereas the Gulfview Heights site sits on dry prairie (xeric-mesic) ecological complex with urban complex immediately to the north.

The Grayton Dunes site sits on open land surrounded by urban residential, sand/beach, and a small amount of bay/gum/cypress ecological cover, and coastal strand.

The Dothan Beach site sits on urban residential land surrounded by sand/beach and coastal strand.

Finally, nearly the entire parcel proposed for development at the Bayside Ranchettes Park site sits on pasture/agricultural/grassland. This parcel is surrounded by a less dominant mix gallberry/saw palmetto shrubland compositional group, xeric-mesic mixed pine/oak forest ecological complex, swamp forest ecological complex, mesic-hydric pine forest compositional group, and urban land cover. Table 12-5 describes the characteristics of these land cover class types in detail.

Table 12-5. Landcover class descriptions.

LANDCOVER CLASS	DESCRIPTION
Urban	This class represents predominantly commercial urban areas.
Sand/beach	This class represents unvegetated sand and beach
Pasture/grassland/agriculture	This class represents pasture, grassland, and some agriculture. The difficulty of differentiating grassland and some forms of agriculture (e.g., hay) from pasture using spectral data has resulted in this lumped class. The class appears to be primarily pasture, although some overlap with sandhill and other open, graminoid type communities may have occurred.
Coastal strand	This is a coastal dune- and shrub-dominated community. Dominance in north Florida by saw palmetto (*Serenoa repens*) and yaupon holly (*Ilex vomitoria*) is common. In southern Florida, saw palmetto (*Serenoa repens*) remains common and sea grape (*Coccoloba uvifera*) becomes a more prominent community member.
Dry prairie ecological complex	In Florida, dry prairies are sparsely wooded savannas with dominance by a mosaic of saw palmetto (*Serenoa repens*) and grasses (*Aristida* spp., *Sporobolus* spp., and *Andropogon* spp.)
Gallberry/saw palmetto compositional group	This class represents shrub and graminoid communities found in association with wet flatwoods. Although similar to the dry prairie class, it tends to be wetter and have a greater dominance by shrubs. Gallberry (*Ilex glabra* and *I. coriacea*), fetterbush (*Lyonia lucida*), sweet pepperbush (*Clethra alnifolia*), and titi (*Cyrilla racemosa* and *Cliftonia monophylla*) are representative species. This community may be an early phase of pine regeneration or it may have a more permanent status.
Swamp forest compositional group	This class represents deciduous and evergreen swamp forests of north and central Florida.
Sand pine forest	Forest dominated by sand pine (*Pinus clausa*). These forests are found on dry, sand ridges in the interior and along the coast.
Bay/gum/cypress ecological complex	This class represents forested communities containing combinations of bay (*Gordonia lasianthus*, *Magnolia virginiana*, *Persea palustris*), gum (*Nyssa* spp.), and cypress (*Taxodium* spp.).
Xeric-mesic mixed pine/oak forest ecological complex	This complex represents mesic to xeric mixed pine/oak forest. The dominant species may include varying levels of *Pinus elliottii*, *P. palustris*, *P. taeda*, *Quercus falcata*, *Q. hemisphaerica*, *Q. virginiana*, *Carya glabra*, and *C. tomentosa*.

Environmental Consequences

Impacts to living coastal and marine resources would be minor. Impacts on native vegetation would be detectable but would not alter overall natural conditions and would be limited to localized areas. Infrequent disturbance and destruction of some individual plants would be expected, but would not affect local or rangewide population stability. The opportunity for the increased spread of non-native species would be temporary and localized and is not anticipated to displace native species populations and distributions. Infrequent or one-time disturbance to locally suitable habitat could occur, but sufficient habitat would remain functional at both the local and regional scales to maintain the viability of the species.

Five of the projects would be at existing coastal access sites to the Gulf of Mexico, with one site (Bayside Ranchettes Park) providing a new access point to Choctawhatchee Bay. The proposed improvements at Palms of Dune Allen West and Ed Walline sites would have no impact to vegetation because they sit on the sand/beach land cover class, which represents unvegetated sand and beach. The Grayton Dunes site would also experience no impact to vegetation because it sits on open land, which has no vegetation. The Dothan Beach site sits on urban residential, so there would also be no impact to vegetation. The Gulfview Heights site sits on dry prairie (xeric-mesic) ecological complex with urban complex immediately to the north and sand/beach to the south. Plants such as saw palmetto and grasses (see Table 12-4) could be impacted by crushing or trampling during the proposed repairing of soffits on pavilions and updates to existing infrastructure, but this impact would be minor and short in duration due to the adherence to construction BPMs, the small footprint of the project, and the fact that no substrate excavation would take place. Lastly, the Bayside Ranchettes Park site sits on the pasture/grassland/agriculture land cover class, which is composed primarily of pasture with some overlap of sandhill and other open, graminoid type communities. The impacts to vegetation at this site would be moderate because of the vegetation removal associated with construction of a parking area, a picnic table, a dock, but short term in duration due to the 2-month construction timeframe.

At the sites with existing vegetation, there is potential for the introduction of invasive plant species due to the introduction of vehicles and equipment that may spread seeds or plants; however, BMPs (HACCP planning and implementation) to prevent introduction and spread have been incorporated into the project. Collectively, the proposed sites would have minor and short-term impacts to vegetation, because of the general lack of vegetation at the sites and the 2-month construction timeframe at each site.

12.52.5.5 Wildlife Habitat

Affected Resources

The Gulf Coast Beaches host a variety of resident and migratory animals. Dune and beach habitat in the project areas provide habitat and important services for 1) nesting and hatching sea turtles, 2) overwintering piping plovers, 3) nesting, resting and foraging migratory birds, and 4) beach mice (Walton County 2011). In addition, migratory butterflies can also be viewed along the coastline. Walton County has adopted a Wildlife Lighting Ordinance (No. 2009-03), which provides guidelines for proper light management to minimize disturbances to nesting sea turtles, their hatchlings, and other coastal wildlife. All new construction within the Wildlife Conservation Zone (750 feet from the mean high water line of the Gulf of Mexico) must comply with the ordinance (Walton County 2013d). All five southern projects are within this zone, but project activities would occur during daylight hours.

Environmental Consequences

Construction and operations would cause only minimal damage to habitats because of the small construction footprints and already existing access footprint at the sites. Although common wildlife may be disturbed from construction activities, these species live in an urban environment where ambient noise levels are high. Habitat conditions after construction would be similar to the existing ones, and no impacts to common wildlife would be anticipated. Construction and operations would cause only minimal alteration and/or damage to habitats, and therefore a minor, short-term impact. The dune habitat in the project sites would be moderately improved over the long term as a result of dune

restoration and walkover construction. The FDEP Wetland and Environmental Resource Field permits would require the implementation of BMPs for turbidity and erosion control. This would help minimize the damage and loss of habitats through the same mitigation measures mentioned in the Construction and Installation section.

12.52.5.5.1 Marine and Estuarine Fauna

Affected Resources

The Choctawhatchee Bay and Gulf of Mexico provide habitat for numerous fish and other marine species. The value of marine habitats at the project sites has been affected by population growth, development, and wastewater disposal. Increased coastal development, in particular, has contributed to displaced habitats, loss of wetlands, and greater amounts of stormwater runoff entering the bay and its tributaries (NWFWMD 2011). Nonetheless, the marine environment at the project sites provides habitat to an array of aquatic species, including redfish, speckled trout (*Cynoscion nebulosus*), shrimp, oysters, gulf menhaden (*Brevoortia patronus*), blue crab, flounder, striped mullet (*Mugil cephalus*), white mullet (*Mugil curema*), and dolphins. Offshore saltwater fish in South Walton include speckled trout, redfish, Spanish mackerel (*Scomberomorus maculates*), flounder, bluefish (*Pomatomus saltatrix*) and cobia (*Rachycentron canadum*) (South Walton 2013; FWC 2013). Benthic organisms such as bivalves, gastropods, and other mollusks, anemones, amphipods, annelids, crustaceans, and echinoderms, and are also abundant in these waters (FWC 2001).

Environmental Consequences

Fish and benthic organisms are not expected to be impacted by the Gulfside projects because construction would take place only in upland areas and because BMPs listed in the Construction and Installation section would be adhered to. Construction on the Bayside Ranchettes Park, however, would include building a dock onto the water. Construction activities are expected to have a minor, short-term impact on fish due to the small project footprint and short (two-month) temporal timescale, in addition to adhering to BMPs listed in the Construction and Installation section. Over the long term, increases in recreational swimmers, canoers, and kayakers at all sites may occur due to the improved access and facilities at the sites. These recreational activities are generally low impact for fish and are expected to have a negligible impact on fish populations.

12.52.5.5.2 Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The Grayson site is within critical habitat for the Choctawhatchee beach mouse (Figure 12-11). In addition, both the Gulf Coast and the Choctawhatchee Bay are considered critical habitat for the Gulf sturgeon (Figure 12-11).

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Walton County, Florida7. Table 12-6 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-6. Potential Impacts to Species/Critical Habitats managed by USFWS in the project area

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle[a], Kemp's ridley turtle; Leatherback turtle[a], Loggerhead turtle	The main risk to sea turtles during execution of this project would come should work be conducted during the turtles nesting season from approximately May to November when turtles, and to a greater extent their nests could be at risk of harassment, harm, and mortality from the use of heavy equipment on the beach. Construction equipment can crush individuals and nests, create ruts and other structures that may make it difficult to return to the sea, and compact substrates which may make nesting difficult. Due to the small footprint of any single project and the conservation measures below, impacts to sea turtles and their nests will be minimized to an insignificant and discountable level. No proposed or designated critical habitat for sea turtles occurs within the action area; therefore, none will be adversely affected or modified.
West Indian manatee	The county in the project area is not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters (U.S. Department of the Interior, 2011) for the Bayside Ranchettes action area. The main risk to manatees during implementation of this project would come from in-water material collisions which could result in harm or mortality. Due to the conservation measures below, the Trustees believe these impacts will be reduced such that they are either avoided or insignificant and discountable.
Piping plover	The main risk to Piping plovers is from human disturbance while resting and foraging in habitats adjacent to work areas. The proposed project could result in short term increases in noise which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the plovers to move to a nearby area. Because other foraging/resting habitats surround the area the Trustees would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable. Piping plover critical habitat is not designated in or near the action.
Red knot	The main risk to Red knots is from human disturbance while resting and foraging in habitats adjacent to work areas. The proposed project could result in short term increases in noise which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the red knots to move to a nearby area. Because other foraging/resting habitats surround the area the Trustees would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable.
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.
Choctawhatchee beach mouse	The Choctawhatchee beach mouse could occupy any and all these sites except Bayside Ranchettes, though they are not expected in the Ed Walline and Gulfview Heights project areas. If working in or near habitat for the mouse (i.e., dune systems) burrows could collapse during walkover construction/replacement activities which can result in abandonment of the burrow by the adults; leading to potential harm or mortality and mortality of any young within the burrow, and increased risk of predation. Lighting added to parking areas could affect the nocturnal habitats of the mouse. Because of the conservation measures listed below (including

[7] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Critical habitat for Choctawhatchee beach mouse	those for critical habitat), the Trustees believe impacts to beach mice are insignificant and discountable. The *Grayton Dunes Beach Access Boardwalk Improvements* component of the Walton County Boardwalks and Dune Crossovers Project overlaps with Choctawhatchee Beach Mouse Critical Habitat Unit 3 (Grayton Beach Unit – 179 acres). Critical habitat is adjacent to the Deer Lake project site. Primary Constituent Elements for the mouse habitat are: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages. The proposed projects are not expected to negatively impact PCE's but rather may benefit PCE's. The existing boardwalks or lack of boardwalks could be limiting the amount of contiguous habitat, food resources, burrow sites, and the boardwalks may be causing obstructions due to their low height. Repairing boardwalks and constructing new ones including should allow for unobstructed movements by mice; help prevent dune erosion (pathway "fanning") from general visitor use thereby reducing changes to burrow sites, food resources, and susceptibility to hurricane/storm impacts. No lighting is planned for the walkovers. At Deer Lake any lighting will wildlife friendly, consistent with latest edition of FWC lighting technical manual. Due to the conservation measures below and project design, no adverse modification or destruction of critical habitat is anticipated.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that the Ed Walline Beach Access Improvements, Gulfview Heights Beach Access Improvements, Grayton Dunes Beach Access Boardwalk Improvements, and Palms of Dune Allen West Beach Access Improvements projects fall outside of NMFS Endangered Species Act (ESA) jurisdiction, as they do not contain suitable habitat for species managed by NMFS. As a result, these projects did not require further ESA evaluation from NOAA.

However, the Bayside Ranchettes Park Improvement project does incorporate in-water work that could potentially affect protected species managed by NMFS. Asa a result, the Bayside Ranchettes project was reviewed for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata,* Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information on some of these species is provided below.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have potential to occur within the project sites. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region and have potential to occur within the waters where in-water work is proposed. All of the Gulfside project sites contain suitable sea turtle nesting habitat along the sandy beach.

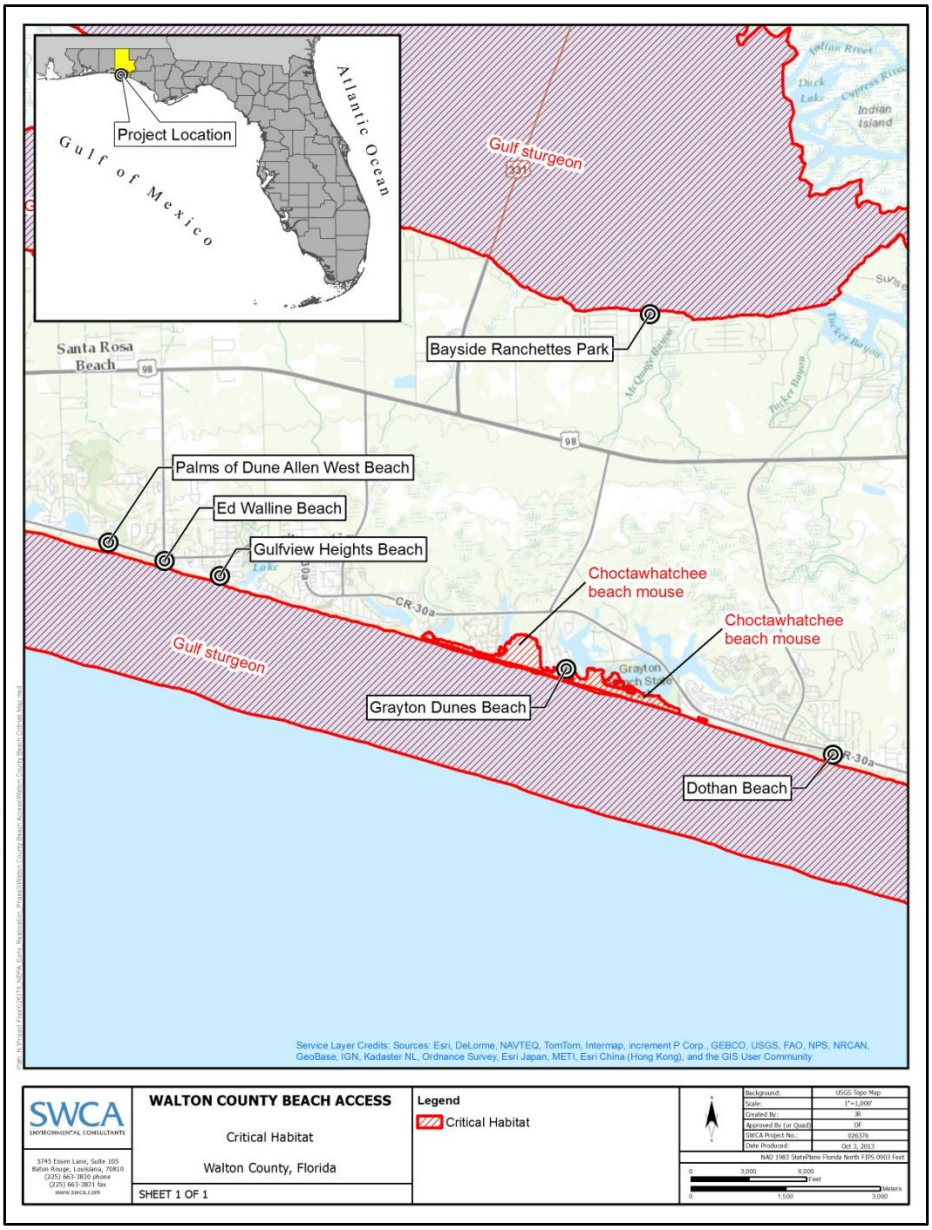
Twenty-two marine mammals are native to the Gulf of Mexico: 21 pelagic species of whales and dolphins, and the West Indian manatee (see Chapter 3). Of these species, the endangered West Indian manatee has the potential to occur in the project area waters. Manatees typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops*) populations are known to migrate into bays, estuaries, and river mouths and could be located in the proposed project area (NMFS 2013a). Bottlenose dolphins have been observed entering and leaving nearshore coastal waters (NMFS 2012).

The endangered West Indian manatee has the potential to occur in the adjacent project area waters. Manatees typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, populations of bottlenose dolphins (*Tursiops*) are known to migrate into bays, estuaries, and river mouths and could be in any of the proposed project sites (NMFS 2013).

Gulf Sturgeon

Both the Gulf Coast and Choctawhatchee Bay are considered critical habitat for the Gulf Sturgeon (see Figure 12-11) in the project sites. Gulf sturgeons are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Pearl River, Louisiana to the Suwannee River, Florida (NMFS 2009). Adult fish reside in rivers 8–9 months each year and in estuarine or Gulf waters during the 3–4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993).

Gulf sturgeon critical habitat was jointly designated by the NMFS and USFWS on April 18, 2003 (50 Code of Federal Regulations [C.F.R.] 226.214). The Bayside Ranchettes Park site is in designated Gulf sturgeon critical habitat Unit 12 (NOAA 2012). Unit 12 is the Choctawhatchee Bay unit in Walton County, which is fed by unit 5, the Choctawhatchee River unit. Critical habitat provides feeding, resting, and sheltering, habitat necessary for maintaining the natural processes that support reproduction, migration, and survival (50 C.F.R. 226.214). These units provide critical winter feeding and migration habitat for Gulf sturgeon. Critical habitat was designated based on seven primary constituent elements (PCEs) essential for its conservation, as defined in the 2003 *Federal Register* 67:39107, as follows:



Source: NOAA Habitat Conservation (2013).

Figure 12-11. Gulf Sturgeon and Choctawhatchee Beach Mouse critical habitat in relation to the project sites.

1. Abundant food items, such as detritus, aquatic insects, worms, and/or mollusks, within riverine habitats for larval and juvenile life stages; and abundant prey items, such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, mollusks, and/or crustaceans, within estuarine and marine habitats and substrates for subadult and adult life stages;
2. Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;
3. Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths; these are believed necessary for minimizing energy expenditure during freshwater residency and possibly for osmoregulatory functions;
4. A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging;
5. Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics necessary for normal behavior, growth, and viability of all life stages;
6. Sediment quality, including texture and chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and
7. Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage). (*Federal Register* 67:39107)

Choctawhatchee Beach Mouse and Its Critical Habitat

The Choctawhatchee beach mouse, like other beach mice, uses the dune systems for sheltering, breeding, and foraging. Choctawhatchee beach mouse habitat consists of coastal sand dunes (high primary and secondary, lower interior) with sparse vegetation, including sea oats, bluestem, and bunch grass on the primary and secondary dunes, and scrubby oaks, dwarfed magnolia, and rosemary on the older dunes. The diet of the Choctawhatchee beach mouse primarily consists of seeds and fruit of dune plants, and insects. Beach mice are nocturnal and disperse out of their burrows at night to forage. Beach mice breeding peaks in the winter but can occur year-round if there is enough food available. The foremost threat facing the Choctawhatchee beach mouse is beach development. Development along beaches can cause destruction or degradation to dunes and dune habitat. For the beach mouse, this leads to increased habitat fragmentation and potential population isolation (Florida Natural Areas Inventory 2001). The Choctawhatchee beach mouse could be present at all sites except Bayside Ranchettes. The Grayton Dunes Beach site is within critical habitat for the Choctawhatchee beach mouse (see Figure 12-12).

Red Knot

The red knot, a federal proposed species, uses the state of Florida both for wintering habitat and migration stopover habitat for those that continue to migrate down to specific wintering locations in South America (Niles et al. 2008). Wintering and migrating red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks (Harrington 2001). Observations indicate that red knots also forage on oyster reef and exposed bay bottoms and roost on high sand flats, reefs, and other sites protected from high tides (Niles et al. 2008). In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Threats to wintering and stopover habitat in Florida include shoreline development, hardening, dredging, deposition, and beach raking (Niles et al. 2008).

Piping Plover

The sandy beaches and shorelines adjacent to the project sites offer suitable foraging and resting habitat for the piping plover during the winter migratory season, and piping plover may forage in the shallow waters of the project sites. Natural shorelines in the proposed project vicinity provide suitable winter migration resting habitat for the piping plover. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches and spoil islands (Haig 1992, as cited by USFWS 2013). On the Gulf Coast, preferred foraging areas were associated with wider beaches, mudflats, and small inlets (USFWS 2013b).

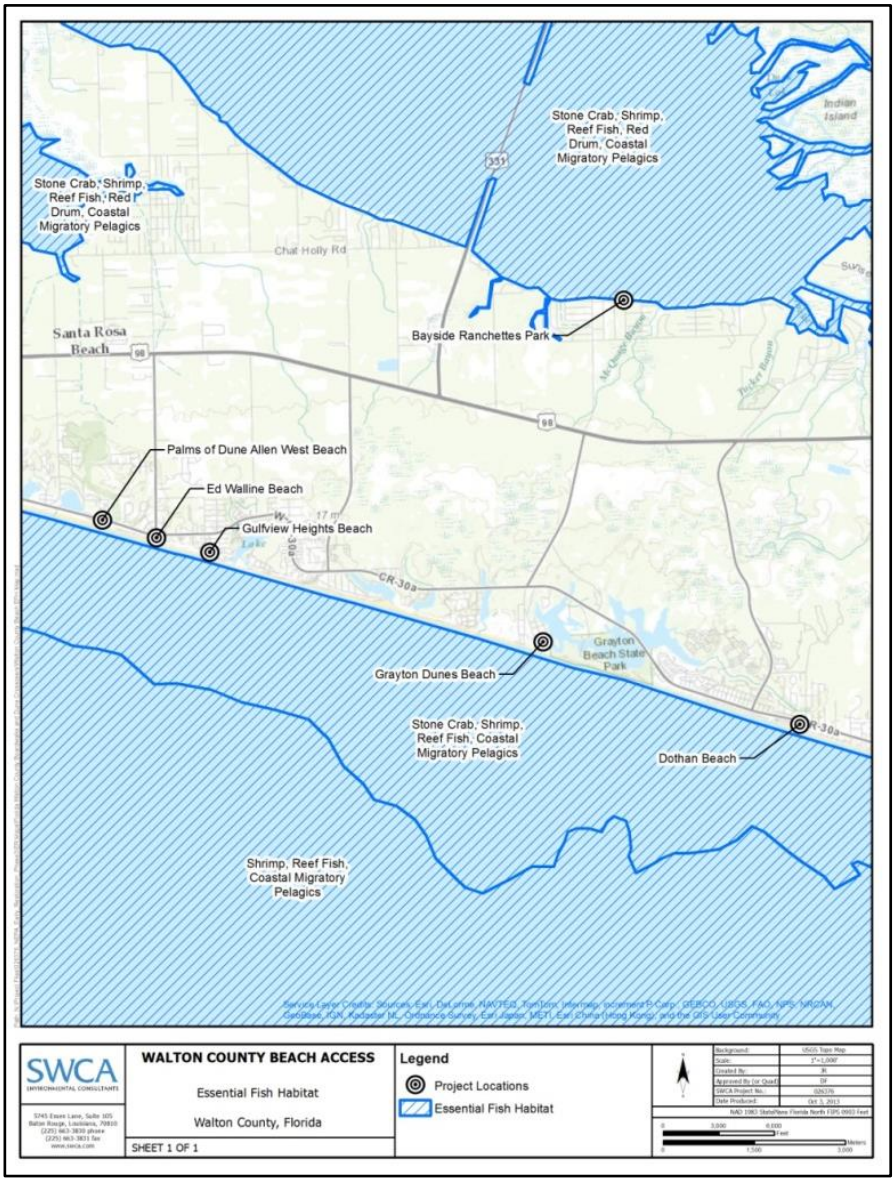


Figure 12-12. Essential fish habitat near the project sites.

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. Ed Walline Beach Access, Dothan Beach Access, Grayton Dunes, Gulfview Heights Beach Access, and Palms of Dune Allen are located in uplands above the mean high- tide line, therefore no EFH is located within the project footprint.

Error! Reference source not found. provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Walton County Bayside Ranchettes Park site and Choctawhatchee Bay.

Table 12-7. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH CATEGORY	SPECIES
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark - Neonate
	Bull Shark - Adult
	Nurse Shark - Juvenile
	Sandbar Shark - Adult
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Tiger Shark - Juvenile
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Spanish Mackerel
	Cobia
	King Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Pink Shrimp
	White Shrimp
	Brown Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper
	Almaco Jack

EFH CATEGORY	SPECIES
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish

Migratory Birds and Bald Eagles

All migratory bird species are protected under the MBTA.

The Trustees have also reviewed the proposed projects for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–712), respectively.

There are four eagles nests in Walton County, all spaced near the shoreline in the western portion of the Choctawhatchee Bay, all of which are more than 2 miles away from any of the project sites.

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's Bald Eagle Management Plan guidelines would be followed (FWC 2008).

Table 12-8 provides a summary of the different bird groups specifically addressed by this review and summarizes the potential impacts to bird groups and associated habitats that could result from the implementation of these projects.

Table 12-8. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest, and in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project. Impacts to breeding/nesting birds will be avoided.
Seabirds (terns, gulls,	Resting, roosting,	Seabirds forage in water and rest/roost in terrestrial habitats

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
skimmers, double-crested cormorant, American white pelican, brown pelican)	nesting	including dunes. However, the level of project activity in open water is unlikely to startle resting birds and because activities will occur during the day roosting should not be impacted. Impacts to breeding/nesting birds will be avoided.
Songbirds	Foraging, feeding, resting, nesting	Songbirds are likely to nest, feed, and rest in and around Grayton Beach. As such, they may be impacted locally and temporarily by the project. Impacts to breeding/nesting birds will be avoided.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-9.

Table 12-9. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	The Trustees expect foraging and resting birds would be able to move to another nearby location to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. Nesting should not be impacted because the project will not occur near nesting habitats.
Songbirds	Trees will not be removed during songbird nesting season at Grayton Beach.

Environmental Consequences

The proposed project has been evaluated for potential short- and long-term impacts to state and federally protected species that may occur in and adjacent to the project sites based on available suitable habitat and restoration goals. Descriptions of these evaluations are provided below.

Essential Fish Habitat

On April 24, 2014, NOAA concluded the Bayside Ranchettes Park Improvements project is not likely to adversely affect EFH (Fay, 2014). The proposed dock construction will take place adjacent to the existing boat ramp. A small area of subtidal habitat would be converted with the placing of pilings for the new dock and steps, however, this will take place near the shoreline and the project is located in an area where the habitat is already likely to be significantly disturbed by the presence and use of nearby docks and, to a lesser degree, by the lack of formal points of access to the water. Disturbance to species will be minor and brief and during construction and adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas.

State-Listed Birds, MBTA, and BGEPA

No bald eagles are known or are likely to use the project sites, due to the lack of wooded areas surrounding most of the sites. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Protected Species

On March 10, 2014, the review of potential impacts to species managed by USFWS was completed for these projects (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed projects may affect, but are not likely to adversely affect, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), West Indian manatee, Choctawhathee beach mouse, piping plover, and red knot (if listed). Further, the review determined the proposed project will not adversely modify or destroy critical habitat for the Choctawhatchee beach mouse.

Consultation of potential impacts on protected species managed by NMFS from the Bayside Ranchettes project was initiated on February 19, 2014. The Trustees' review of the potential impacts of the Bayside Ranchettes Park Improvements project for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the Bayside Ranchettes project implementation area:

- Gulf Sturgeon Critical Habitat- The proposed project footprint falls within an identified Gulf sturgeon critical habitat unit (Critical Habitat Unit 12 – Choctawhatchee Bay); however, it has been determined that the construction activities associated with this project will not adversely affect the PCE's associated with this habitat or modify designated Gulf sturgeon critical habitat.
- Gulf Sturgeon - The proposed may project affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA for the Bayside Ranchettes project. Due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

12.52.5.5.3 Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.52.5.6 Human Uses and Socioeconomics

12.52.5.6.1 Socioeconomics and Environmental Justice

Affected Resources

The proposed project would be in Walton County, Florida. Data and characteristics on the population of Walton County are summarized and compared to those same measures for the population of the state as a whole (Table 12-10).

Environmental Consequences

The proposed projects would create approximately 91 worker days of employment during construction. The improved beach access and facilities at the various sites would result in a minor increase in visitation to the sites, which could benefit the local economy for multiple years. The projects would not create a benefit for any specific group or individual, but rather would produce benefits realized by the local community and visitors. Also, there are no indications that the public improvements would be contrary to the goals of Executive Order 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low-income populations of the surrounding community. Therefore no environmental justice issues would be anticipated in the short term or long term.

Table 12-10. Population characteristics of Santa Rosa County are compared with State of Florida data.

PEOPLE QUICKFACTS	WALTON COUNTY	FLORIDA
Population, 2012 estimate	57,582	19,317,568
Population, 2010 (April 1) estimates base	55,043	18,802,690
Population, percentage change, April 1, 2010 to July 1, 2012	4.6%	2.7%
Population, 2010	55,043	18,801,310
Persons under 5 years, percentage, 2012	5.6%	5.5%
Persons under 18 years, percentage, 2012	20.1%	20.7%
Persons 65 years and over, percentage, 2012	17.5%	18.2%
Female persons, percentage, 2012	48.9%	51.1%
White alone, percentage, 2012 (a)	89.6%	78.3%
Black or African American alone, percentage, 2012 (a)	6.0%	16.6%
American Indian and Alaska Native alone, percentage, 2012 (a)	0.9%	0.5%
Asian alone, percentage, 2012 (a)	1.0%	2.7%
Native Hawaiian and Other Pacific Islander alone, percentage, 2012 (a)	0.2%	0.1%
Two or More Races, percentage, 2012	2.3%	1.9%
Hispanic or Latino, percentage, 2012 (b)	5.9%	23.2%
White alone, not Hispanic or Latino, percentage, 2012	84.4%	57.0%
Homeownership rate, 2007–2011	74.0%	69.0%
Median household income, 2007–2011	$46,926	$47,827
Persons below poverty level, percentage, 2007–2011	14.9%	14.7%
Manufacturers' shipments, 2007 ($1,000)	0	104,832,907
Merchant wholesaler sales, 2007 ($1,000)	205,148	221,641,518
Retail sales, 2007 ($1,000)	705,008	262,341,127

Source: U.S. Census Bureau State & County QuickFacts 2013
(a) Includes persons reporting only one race.
(b) Hispanics may be of any race, so also are included in applicable race categories.
FN: Footnote on this item for this area in place of data
NA: Not available
D: Suppressed to avoid disclosure of confidential information
X: Not applicable
S: Suppressed; does not meet publication standards
Z: Value greater than zero but less than half unit of measure shown
F: Fewer than 100 firms

12.52.5.6.2 Cultural Resources

Affected Resources

There are multiple project sites associated with the beach improvements. Because the sites are geographically separated, they are discussed individually below. A review of Florida Master Site Files was conducted for each of the beach locations.

Bayside Ranchettes Park

There are at least eight previously recorded archaeological sites within 1 mile of the Bayside Ranchettes Beach site. All of these sites are prehistoric, and all of them with the exception of 8WL543A are of unknown eligibility at this time. Site 8WL543A, a prehistoric scatter, was recommended ineligible for the National Register of Historic Places (NRHP). Site 8WL33, which is approximately 0.4 mile to the southwest, is reported to contain human remains.

A review of the project site indicates that there are no previously recorded sites within the area where construction would take place. However, given the concentration of prehistoric sites in the immediate area, it is likely that additional resources may be present.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Dothan Beach

There are at least two previously recorded archaeological sites within 1 mile of the Dothan Beach site. These sites consist of a single prehistoric site (8WL74) and a shipwreck (8WL1359). Neither of these sites has a recommendation for the NRHP.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Grayton Dunes Beach

A review of the Florida Master Site File indicates that there are at least 23 previously recorded sites within and just outside the park. Sites 8WL434-440 and 8WL491 are historic standing structures outside the park. Site 8WL483 is the listing for the park itself; sites 8WL2573-2579 are standing structures present within the park. The remaining sites (8WL29, 69, 82, 24/47, 83, 876, and 1069) are all prehistoric in nature.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Gulfview Heights Beach

There is one previously recorded archaeological site within 1 mile of the project site. This site, 8WL982, is along the beach and is a prehistoric site of unknown eligibility. Although this site is not in the project site, sites have been found along the beach in similar contexts.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Ed Walline Beach

There is a single site near this project site; it is a prehistoric scatter of material identified near Draper Lake. Although this site is not in the project site, sites have been found along the beach in similar contexts.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Palms of Dune Allen West Beach

There are at least three archaeological sites recorded near this project site. Of these, two are prehistoric scatters near Oyster Lake and one is a historic-era cemetery (the Gulf Cemetery, 8WL2631) that is still in use.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

One of the proposed projects, the Grayton Beach, is in a state park owned and operated by the State of Florida. As such, there are some additional requirements associated with construction within the park. A Phase I cultural resources survey would be conducted. Based on the results of the survey, project plans would be altered to avoid any historic properties that would be adversely affected by the project work (ground disturbance and construction).

A complete and separate review of each of these projects under Section 106 of the NHPA is ongoing and will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within a specific project area. Each project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.52.5.6.3 Infrastructure

Affected Resources

The existing infrastructure at certain sites would be improved, whereas at others, new infrastructure would be added.

Environmental Consequences

The projects would not have an adverse impact on infrastructure in the area, because all infrastructure at the proposed project sites would either be improved or replaced with new infrastructure.

12.52.5.6.4 Land and Marine Management

Affected Resources

The surrounding land-use characteristics at the five Gulfside sites consist of public beaches along the Gulf shorelines surrounded by residential areas. The Bayside Ranchettes Park site is in a wooded, bayside, residential area with several adjacent and nearby docks with steps into the water. The Gulfside site projects would be in a coastal area that is regulated by the federal Coastal Zone Management Act (CZMA) of 1972 and the Florida Coastal Management Act of 1978.

Environmental Consequences

The projects would be consistent with current land use and would have no adverse impact on land use or marine management in the area.

12.52.5.6.5 Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.52.5.6.6 Aesthetics and Visual Resources

Affected Resources

Existing aesthetics and visual resources are views of a heavily developed sandy shorelines, residential areas, hotels, and beachside towns.

Environmental Consequences

Aesthetics would be reduced in the project sites during construction due to the presence of equipment and materials. However, these impacts would be minor, temporary changes to visual resources because they would be limited to the immediate vicinity of the sites and would be limited to the 2-month construction period. Placement of dune walkovers in areas where there currently are none may result in a change in the visual character of the dune areas. However, design standards as discussed in the Construction and Installation section above are intended to minimize visual impacts and maintain a natural environment that allows people access, but also protects valuable dune resources. Although

dune walkovers would be visible to users of the facilities, it is not anticipated that these walkovers would detract significantly from the existing viewshed and result in a long-term, adverse effect.

12.52.5.6.7 Tourism and Recreational Use

Affected Resources

Walton County's 16 premier sandy beaches are visited by tourists each year to fish, dive, swim, and view wildlife. Recreation at these sites includes swimming, beach-going, picnicking, wildlife viewing, fishing, hiking, canoeing, kayaking, and bicycling (Walton County 2013b).

Environmental Consequences

During the construction period, the visitor recreational experience at certain sites would be negatively impacted by noise and visual disturbances associated with the use of construction equipment. The construction process would also limit recreational activities near construction areas for a short time to protect public safety. The impact would be short term and minor because there are numerous other sites along these beaches in Walton County to obtain the same or similar recreational experiences. These alternate beach access locations may experience a temporary spike in use during the 2-month construction period. Over the long term, minor, beneficial impacts to tourism and recreational use would be expected due to the enhancement of recreational opportunities associated with improved facilities and accessibility.

12.52.5.6.8 Public Health and Safety and Shoreline Protection

Affected Resources

There are no known hazardous waste generation or disposal sites near the project sites. Erosion at the proposed project sites are typical of a barrier island shoreline, but would be mitigated through construction BMPs discussed in the Construction and Installation section.

Environmental Consequences

Overall, the project would have a minor, beneficial impact on public health and safety and shoreline protection because the projects would provide organized public access to the beach, concentrating shoreline access impacts and providing limited public facilities, and would have no negative impacts on these resources.

12.52.6 Summary and Next Steps

The proposed Walton County Boardwalks and Dune Crossovers: Grayton Dunes Beach Access Boardwalk Improvements project would improve the Grayton Dunes beach access and boardwalk facility in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The proposed Walton County Boardwalks and Dune Crossovers: Ed Walline Beach Access Improvements project would improve the Ed Walline regional beach access facility in Walton County. The proposed improvements include replacing pavilions and restroom fixtures and upgrading all interior plumbing. The proposed Walton County Boardwalks and Dune Crossovers: Dothan Beach Access Boardwalk Improvements project would improve the Dothan Beach Access Boardwalk in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The proposed Walton County Boardwalks and Dune Crossovers: Bayside Ranchettes Park Improvements project would improve the Bayside Ranchettes Park in Walton County. The

proposed improvements include constructing a parking area, a picnic table, a dock, and steps into the water allowing access to the bay. The proposed Walton County Boardwalks and Dune Crossovers: Palms of Dune Allen West Beach Access Improvements project would improve the Palms of Dune Allen West beach access facility in Walton County. The proposed improvements include constructing a dune walkover, allowing beach visitors to access the beach. The proposed Walton County Boardwalks and Dune Crossovers: Gulfview Heights Beach Access Improvements project would improve the Gulfview Heights beach access facility in Walton County. The proposed improvements include replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions. These projects are consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects would enhance and/or increase increase recreational beach use opportunities by improving beach access and beach access facilities, and by improving recreational opportunities at parks. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.53 Gulf County Recreation Project: Project Description A (Highland View Boat Ramp)

12.53.1 Project Summary

The proposed Gulf County Highland View Boat Ramp project would improve the existing Highland View boat ramp in Gulf County. As part of this project, the amenities at this boat ramp site would be upgraded. No work to the ramp itself if planned. This work would include some renovations to the existing pier structure such as replacing planking and side bumpers. Expanding the pier footprint is not anticipated and no new piling placement is expected. Additional work would include renovating and expanding the existing informal sand parking area to provide a more stable long-term surface. In addition, current project plans call for providing some sort of restroom facilities (e.g., a port-a-potty). The total estimated cost of the project is $176,550.

12.53.2 Background and Project Description

The Trustees propose to improve and enhance the existing Highland View boat ramp in Gulf County (see Figure 12-13 for general project location). The objective of the Gulf County Highland View Boat Ramp project is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The restoration work proposed includes renovating the existing pier structure, renovating and expanding the parking area, and providing restroom facilities.

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G-8 BOAT RAMP RESTORATIONS

Highland Boat Ramp
2010 Aerial Imagery

Gulf County, Florida

SHEET 1 OF 1

Legend

Project Location

Background:	ESRI World Imagery
Scale:	1"=1,000'
Created By:	JR
Approved By (or Quad):	JS
SWCA Project No.:	026376
Date Produced:	Oct 5, 2013

NAD 1983 StatePlane Florida North FIPS 0903 Feet

0 500 1,000 Feet
0 250 500 Meters

Figure 12-13. Location of Gulf County Recreation Project –Highland View Boat Ramp Project.

12.53.3 Evaluation Criteria

This proposed project satisfies the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Gulf County Highland View Boat Ramp project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.54, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.54 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Gulf County Recreation Project – Highland View Boat Ramp project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.53.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. Performance monitoring will evaluate: 1) the renovation of the existing pier structure; 2) the renovation and expansion of the parking area; and 3) the new restroom facilities. Specific performance criteria include: 1) the completion of the construction as designed and permitted,

and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the human use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.53.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. Combined NRD Offsets for the Gulf County Recreation Projects, of which this is a component, are $4,237,200 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[8]

12.53.6 Costs

The total estimated cost to implement this project is $176,550. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[8] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.54 Gulf County Recreation Projects: Project Description B (Indian Pass Boat Ramp)

The Gulf County Recreation Projects: Indian Pass Boat Ramp project component is being dropped from the Final Phase III ERP/PEIS. Gulf County requested Trustees to withdraw the project so the County could pursue the construction of a new ramp at a nearby location and abandon this facility. Total funds allocated to Indian Pass Boat Ramp project component were $176,550.00.

The funds from the Gulf County Recreation Proejcts: Indian Pass Boat Ramp project component will be re-allocated to the Gulf County Recreation Project: Windmark Fishing Pier project component. (see Section 12.57). During the NEPA review of the Windmark Fishing Pier project, it has become apparent that additional funds will be needed to construct additional boardwalks to address environmental issues involving beach mice, protecting the existing dune system and making the pier accessible for all. The construction of the additional boardwalks will be $176,550.00. The construction of the additional boardwalks is not outside the scope of the originally proposed Windmark Fishing Pier project component. The re-allocation of funds from the Indian Pass Boat Ramp project compenent to the Windmark Fishing Pier project component does not affect the BCR that was negotiated with BP for the Gulf County Recreation suite of projects.

12.55 Gulf County Recreation Projects: Environmental Review A (Highland View Boat Ramp)

The purpose of this project is to improve the quality and safety of recreational boating in Florida's St. Joseph Bay and Apalachicola Bay systems.

12.55.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the *Federal Register* on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

Public boat ramps provide local boaters with access to public waterways. Boating access provides the primary infrastructure upon which many types of secondary activities may be enjoyed. A myriad of water-dependent activities provide recreational values and include fishing, scalloping, SCUBA diving, water skiing, swimming, or simply cruising local waterways under power of sail.

This project would involve replacing and enhancing an existing boat ramp in Gulf County, Florida, to provide better facilities for the public and safer launch conditions for a wider variety of vessels. This project is part of the Florida Department of Environmental Protection (FDEP) Gulf County Recreation Project.

12.55.2 Project Location

The Highland View boat ramp is located in Port St. Joe, Gulf County, Florida, under the Tapper Bridge on Highway 98 (Figure 12-13 and Figure 12-14). The coordinates in decimal degrees are 29.832N 85.313W. This boat ramp is a single-lane concrete ramp on the Gulf County Canal providing access to St. Joseph Bay. The boat ramp area consists of an L-shaped boarding dock, parking for more than 40 vehicles with trailers, and restroom facilities and trash cans.

Figure 12-14. Vicinity Map of the Highland View Boat Ramp in Gulf County Florida.

12.55.3 Construction and Installation

As part of the Highland View boat ramp project, the amenities at this boat ramp site would be upgraded.

No work to the ramp itself if planned. This work would include some renovations to the existing pier structure such as replacing planking and side bumpers. Expanding the pier footprint is not anticipated and no new piling placement is expected. Additional work would include renovating and expanding the existing informal sand parking area to provide a more stable long-term surface. In addition, current project plans call for providing some sort of restroom facilities (e.g., a port-a-potty).

The Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented during any in-water activities. These conditions include:

- All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and impact to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees that are protected under the Marine Mammal Protection Act, the ESA, and the Florida Manatee Sanctuary Act.
- All vessels associated with the construction project shall operate at "idle speed/no wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a 4-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
- Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- All on-site project personnel shall be responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee(s) comes within 50 feet of the operation. Activities shall not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.
- Any collision with or harm to a manatee shall be reported immediately to the Florida Fish and Wildlife Commission (FWC) Hotline at 1-888-404-3922.
- Collision and/or harm should also be reported to the USFWS in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to the FWC at ImperiledSpecies@myFWC.com.
- Temporary signs concerning manatees shall be posted before and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign reads: "Caution: Boaters must be posted." A second sign measuring at least 8.5 × 11 inches explaining the requirements for idle speed/no wake and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee.

The Highland View boat ramp projects will adhere to all applicable permit conditions, federal, state, and local requirements for the protection of marine mammals during construction.

Construction materials would be staged in the project area during work.

In addition, as work proceeds, the project area would be isolated by construction fencing to prevent incidental access. This fencing material would be emplaced by hand driving (e.g., with a sledge hammer or post driver) stakes as necessary. These stakes would likely be less than 2 inches in diameter and driven to a depth of 1 to 2 feet to secure the fencing. No piles would be driven for these boat ramp renovations.

Equipment for the replacement and enhancement of the boat ramp would be expected to consist of the following:

- Three tractor-trailers for material delivery
- Six small power tools (nail guns, saws, drills)
- One generator for the small tools

Construction could occur at any time but would ideally take place during the time of year when recreation use is lowest to minimize impacts to boat ramp users. Construction work and permitting is expected to take up to 2 years to complete. Currently, development and completion of the design is anticipated for summer 2015 and construction would begin in the summer or fall of 2015.

12.55.4 Operations and Maintenance

Gulf County operates a variety of parks for outdoor recreation and leisure facilities, including the Highland View boat ramp. Maintenance would fall under the purview of the Gulf County Maintenance Department, which would include tasks such as restroom checks and cleaning, as well as removing debris and trash from the boat ramps and boat trailer parking areas.

12.55.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.55.5.1 No Action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.55.5.2 Physical Environment

12.55.5.2.1 Geology and Substrates

Affected Resources

According to the Geologic Map of Florida, the ramps are likely located on the Quaternary system, Holocene series stratigraphic unit. This stratigraphic unit consists of quartz sands, carbonate sands, muds, and organics occurring near the present coastline at elevations generally less than 5 feet (Scott 2001).

The Highland View boat ramp is built on Corolla fine sand, 1 to 5 percent slopes, soil map unit. This soil is moderately well drained and somewhat poorly drained on nearly level flats, small dunes, and swales on large dunes along the Gulf Coast beaches. Homesites may be built on this soil, but it is not suited for cultivated crops, pasture, or woodlands.

A sinkhole is a closed depression in the land surface that is formed by surficial solution or by subsidence or collapse of surficial materials due to the solution of near-surface limestone or other soluble rocks.

Sinkholes are a natural and common geologic feature in areas underlain by limestone and other rock types soluble in natural water; they are one of the predominant landform features of Florida. The state has been classified into four areas of sinkhole occurrence. Gulf County is categorized as Area IV with a carbonate rock cover more than 200 feet thick. Area IV consists of cohesive sediments interlayered with discontinuous carbonate beds. Sinkholes are very few, but several large-diameter, deep sinkholes occur. Cover-collapse sinkholes dominate in Area IV, which occur when a solution cavity develops in limestone to such a size that the overlying cover material can no longer support its own weight (FDEP 2013).

Environmental Consequences

Mechanized equipment and hand tools would be used to complete the construction of the boat ramps. Some excavation of soils would occur; however, adverse impacts to geology and substrates would be minor. Disturbance would be detectable, but would be short term, small, and localized. There would be no long-term changes to local geologic features or soil characteristics. Erosion and/or compaction may occur in localized areas.

12.55.5.2.2 Hydrology and Water Quality

Affected Resources

Northwest Florida has seven major watersheds, all of which have been identified as priorities under the Surface Water Management and Improvement (SWIM) program. Water quality protection is the underlying goal of SWIM, along with the preservation and restoration of natural systems and associated public uses and benefits (Northwest Florida Water Management District [NWFWMD] 2011).

The Highland View boat ramp is on the Gulf County Canal, which flows into St. Joseph Bay. St. Joseph Bay is separated from the Gulf of Mexico by St. Joseph Peninsula and is considered the only body of water in the eastern Gulf that is not influenced by freshwater inflows (FDEP 2008a). The bay has a surface area of 42,826 acres and connects to the Intracoastal Waterway by the Gulf County Canal (Thorpe 2000).

St. Joseph Bay is part of the St. Andrews Bay watershed system, which includes St. Andrews, West, East, and North bays; St. Joseph Bay; and Deer Point Reservoir, as well as the respective surface water basins of each of these waterbodies. The waterways are primarily used for transportation, seafood harvesting, recreation, and waste disposal. Broad issues for the St. Andrews Bay system include degradation through point and nonpoint pollution sources, habitat quality that is threatened by and degraded through sedimentation and deposition, and public education and awareness (Thorpe 2000).

Floodplains

Based on Federal Emergency Management Agency (FEMA) flood insurance rate maps (12045C0461F and 12045C0329F), the Highland View boat ramp appears to be within Zone A, or an area subject to inundation by the 1 percent annual chance flood event and no base flood elevations or flood depths (FEMA 2002).

Environmental Consequences

Hydrology would be affected only if water is channeled or otherwise controlled around the boat ramp area during construction. Water quality could be impacted during construction by leaks or spills from equipment and disturbance of sediments that affect siltation, turbidity, and the release of chemicals

from sediments. If the disturbed sediments are anoxic, the biological oxygen demand in the water column would increase. Erosion should not occur due to the presence of docks and bulkheads; however, if these structures were altered or damaged during construction such that erosion could occur it would also affect water quality. With required mitigation in place, the effect on hydrology and water quality would be measurable or detectable but it would be small, short term, and localized. Water quality impacts would quickly become undetectable, and the area's hydrology would be only temporarily altered during construction.

All permit conditions, including mitigation measures for siltation, erosion, turbidity, and release of chemicals, would be strictly adhered to. During construction, BMPs and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. FDEP permit conditions require erosion and turbidity mitigation measures, which may include the following:

- Installation of floating turbidity barriers.
- Installation of erosion control measures along the perimeter of all work areas.
- Stabilization of all filled areas with sod, mats, barriers, or a combination.
- Stoppage of work if turbidity thresholds are exceeded. The soils would then be stabilized, work procedures modified, and the FDEP would be notified.

The FDEP permit also constitutes a Certification of Compliance with State Water Quality Standards under Section 401 of the CWA, which indicates that the project would comply with state water quality standards and other aquatic resource protection requirements.

After construction, increased boat traffic at the two boat ramps could result in minimal impacts to surface water quality. Boat wakes created by additional boat traffic that could increase shoreline erosion would be controlled through no-wake or speed zones to mitigate shoreline erosion.

Impacts from chemicals that could be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures would be implemented for applicable construction activities. FDEP permit conditions typically spill containment protection and mitigation measures such as:

- Prohibiting boat repair or fueling facilities over the water.
- Prohibiting vessels from being removed from the water for the purposes of maintenance or repair.
- Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.

This project would not impact groundwater.

Further, the proposed project is not anticipated to require authorization by the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA).

12.55.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS have been set for six common air pollutants (also known as criteria pollutants), consisting of particle pollution or particulate matter, ozone, carbon monoxide, sulfur dioxide (SO_2), nitrogen dioxide, and lead. Particulate matter is defined as fine particulates with a diameter of 10 micrometers or less (PM_{10}) and fine particulates with a diameter of 2.5 or less ($PM_{2.5}$). When a designated air quality area or airshed within a state exceeds a NAAQS, that area may be designated as a "nonattainment" area. Areas with levels of pollutants below the health-based standard are designated as "attainment" areas. To determine whether an area meets the NAAQS, air monitoring networks have been established and are used to measure ambient air quality. The EPA also regulates 187 hazardous air pollutants (HAPs) that are known or suspected to cause cancer or other serious health effects. Air quality in the Florida panhandle is in attainment with the NAAQs (EPA 2013a).

Greenhouse Gases

Gases that trap heat in the air are called greenhouse gases (GHGs). The primary GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_x), and fluorinated gases. Over the past century, human activities have released large amounts of GHGs into the atmosphere, which are contributing to global warming. Global warming is defined as the ongoing rise in global average temperature near the Earth's surface and is known to cause changes in climate patterns.

According to the EPA, the average annual temperature in the southeast portion of the United States has increased by approximately 2.0 degrees Fahrenheit (°F) since 1970. Winters, in particular, are getting warmer, and the average number of freezing days has decreased by 4 to 7 days per year since the mid-1970s. Most areas are getting wetter; autumn precipitation has increased by 30% since 1901 (EPA 2013b). In many parts of the region, the number of heavy downpours has increased. Despite the increases in fall precipitation, the area affected by moderate and severe drought has increased since the mid-1970s (EPA 2013b).

Average annual temperatures in the region are projected to increase from 4°F to 9°F by 2080. Hurricane-related rainfall is projected to continue to increase. Models suggest that rainfall will arrive in heavier downpours, with increased dry periods between storms. These changes would increase the risk of both flooding and drought. The coasts will likely experience stronger hurricanes and sea level rise. Storm surge could present problems for coastal communities and ecosystems (EPA 2013b).

Total GHG emissions in the state of Florida from 1990 to 2007 have increased at an average rate of 2.1% per year. Total GHG emissions in 2007 were 290 million metric tons of CO_2 equivalent ($MMTCO_2E$). In 2007, 91% of GHG emissions in Florida were CO_2 emissions (FDEP 2010).

Environmental Consequences

Project implementation would require the use of heavy mechanized equipment, which would lead to temporary air pollution (e.g., criteria pollutants, HAPs, GHGs) due to emissions from the operation of construction vehicles and equipment. Any air quality impacts that occur would be minor due to their localized nature, short-term duration and the small size of the project. Available BMPs would be

employed to prevent, mitigate, and control potential air pollutants during project implementation. No air quality-related permits would be required.

In terms of construction equipment, a bulldozer and grader would likely contribute most of the GHG emissions; GHG emissions from the remaining equipment would be negligible. Using the operating assumption of 8 hours per day and 5 days per week for 4 months, GHG emissions from the bulldozer and grader have been estimated (Table 12-11).

At the completion of the project, visitor use (and therefore vehicle and boat use) could increase due to the improved access. Increased exhaust emissions could affect air quality over the long term. However, adverse impacts to air quality are expected to be minor because management actions could be taken to limit boat use.

12.55.5.3 Noise

Affected Resources

Noise can be defined as unwanted or nuisance sound. The Noise Control Act of 1972 (42 USC 4901–4918) was enacted to establish noise control standards and regulate noise emissions from commercial products such as transportation and construction equipment. Amplitude is the magnitude of a sound and is usually expressed in decibels (dB), a dimensionless ratio of sound pressure to that of a reference pressure. The A-weighted decibel (dBA) is the adjusted unit of sound used to describe the human response to noise from industrial and transportation sources. The threshold of hearing is 0 dB. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear.

Table 12-11. Estimated generation of greenhouse gas emissions during a 2-year construction period for the Highland View boat ramp.

EQUIPMENT [1]	NUMBER OF 8-HOUR DAYS	CO_2 (METRIC TONS)[2]	CH_4 (CO2E) (METRIC TONS)[3]	NO_X (CO_2E) (METRIC TONS)	TOTAL CO_2E (METRIC TONS)
Grader	40	0.39	0.0003	0.003	15.6
Bulldozer	160	0.38	0.0002	0.002	60.8
Track hoe	160	0.35	0.0002	0.002	76
Tractor trailer	18	0.34	0.0002	0.002	6.12
Pickup truck[4]	320	0.16	0.0001	0.001	51.2
Concrete trucks	20	0.136	0.04	0.576	15.04
TOTAL					224.76

[1] Emissions assumptions for all equipment based on 8 hours of operation.
[2] CO_2 emissions assumptions for diesel and gasoline engines based on EPA (2009).
[3] CH_4 and NO_x emissions assumptions and CO_2e calculations based on EPA (2011).
[4] Emissions assumptions for an 8-cylinder, 6.2-liter gasoline engine Ford F150 pickup and 18 gallon (half-tank) daily fuel consumption (U.S. Department of Energy 2013).

Table 12-12 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-12. Typical noise levels for common sources.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawn mower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from U.S. Department of Energy and Bonneville Power Administration (1986).

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and the distance of the receptor from noise sources. Existing sources of noise in the project area are from recreational boating, traffic on nearby roads and highways, overhead aircraft, and ambient natural sounds such as wind, waves, and wildlife.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive receptors in the project area include recreational users, nearby residences, and wildlife. There are residential and commercial properties directly adjacent to the Highland View boat ramp location. It is also located under the Tapper Bridge on Highway 98, which is the major road into Port St. Joe and on the Gulf County Canal that connects the waterway at White City, Florida, with St. Joseph Bay. There is also a large seafood processing facility nearby on the Gulf County canal.

Environmental Consequences

Instances of increased noise would occur during the project. Equipment and vehicles used during the replacement and enhancement of the boat ramps would generate noise. Construction equipment noise is known to disturb fish, marine mammals, and nesting shorebirds. The Highland View boat ramp is already subject to traffic noise; therefore, the short-term noise increases due to the construction could attract attention, but its contribution to the soundscape would be localized and not of consequence, nor would it affect current user activities.

After completion of the project, the soundscape would return to pre-project levels. The potential for increased vehicle and boat traffic exists due to the improved boat ramps, which would result in a slight increase in noise levels in the vicinity. Overall, long-term noise impacts from boating and other recreational activities would remain minor.

12.55.5.4 Biological Environment

12.55.5.4.1 Living Coastal and Marine Resources

Vegetation

Affected Resources

The Highland View boat ramp is located in a highly disturbed and industrial area. The existing boat ramp is adjacent to a paved parking lot and is surrounded by ruderal grasses. Based on aerial reviews, the project site appears to contain sparse palm trees (*Arecaceae* spp.) north of the site. Due to the disturbed nature of the Gulf County Canal, and the shallow extent of the existing ramp's reach relative to the width of the canal, it is unlikely that submerged aquatic vegetation is present near the boat ramp. No listed plant species have the potential to occur within the project site.

Environmental Consequences

Construction of the potential projects would require the permanent removal of ruderal vegetation within the affected areas. The use of equipment and the disturbance of soil and existing vegetation would also introduce a risk of noxious weed or invasive vegetation species introduction. Due to the lack of vegetation present at both sites, impacts on native vegetation would not be expected.

Wildlife Habitat

Affected Resources

The project site is expected to support ruderal species such as raccoon, opossum, gray squirrel (*Sciurus carolinensis*), and other non-game mammals would be present in upland areas within the vicinity of each project.

St. Joseph Bay is a designated Important Bird Area of over 8,500 acres that is made up of several parcels: Black's Island, Eglin Air Force Base Test Site, Palm Point, St. Joseph Bay Buffer, T.H. Stone Memorial Park, and St. Joseph Peninsula State Park. These five sites that surround and form St. Joseph Bay are regionally important for breeding brown pelicans (*Pelecanus occidentalis*) (Black's Island), breeding snowy plovers (*Charadrius alexandrinus*) (Palm Point), wintering shorebirds, migrant raptors (St. Joseph Peninsula State Park), neotropical migrants (St. Joseph Peninsula State Park), and other species (National Audubon Society, Inc. 2002). The Highland View boat ramp is located within the St. Joseph Bay and, thus, the Important Bird Area. However, due to the highly disturbed nature of the habitat surrounding the Highland View boat ramp, it is unlikely that migratory birds would utilize the project area as nesting habitat.

At this time, no terrestrial wildlife (non-bird) surveys have been conducted in either of the project areas.

Environmental Consequences

Although common wildlife may be impacted, these species live in an area where regular use of boat ramps creates ambient noise levels similar to that of the project. Habitat conditions after construction would be similar to the existing conditions, and no long-term impacts to common wildlife would be anticipated.

The Highland View boat ramp enhancement project would include in-water activitythat could disturb foraging birds or other wildlife due to turbidity, acoustical vibration, and noise impacts during the

removal efforts of existing infrastructure. This would be a short-term, minor impact and any wildlife or birds in the immediate project area would be expected to move away. Additionally, foraging habitat is abundant in the areas adjacent to the project areas. Activities for both projects would take place in only a small portion of these areas. Therefore, foraging birds or other wildlife would not be impacted as a result of the proposed projects.

Marine and Estuarine Fauna (fish, shell beds, and benthic organisms)

Affected Resources

The value of marine habitats adjacent to the Highland View boat ramp has been impacted by population growth and development. Unconsolidated substrate surrounding the boat ramp supports infaunal organism, as well as a transient phytoplankton and pelagic organisms (e.g., tube worms, sand dollars, mollusks, isopods, amphipods, burrowing shrimp, and an assortment of crabs) (FDEP 2008a). This unconsolidated substrate serves as feeding grounds for bottom feeding fish such as redfish (*Sciaenops ocellatus*), flounder, spot, and sheepshead. Common fish near the Highland View boat ramp include spotted seatrout (*Cynoscion nebulosus*), king mackerel (*Scomberomorus cavalla*), Spanish mackerel (*Scomberomorus macalatus*), red drum (*Scienops ocellatus*), southern flounder (*Paralichthys lethostigma*), red fish, tarpon (*Megalops atlanticus*), mullet (*Mugi cephalus, Mugil curema*) and bay scallops (*Argopecten irradians*) (FDEP 2008a).

Environmental Consequences

Infaunal organisms and transient and pelagic organisms supported by the unconsolidated substrate surrounding the boat ramps would potentially be impacted by compaction associated with vehicular traffic and disturbances associated with construction. This in turn, could have impacts on bottom-feeding fish. These impacts would be temporary and limited to construction. Infaunal organisms and transient and pelagic organisms would be able to recolonize disturbed areas quickly and return the community to its original state. Therefore, impacts to these species would be short term and minor.

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees reviewed the species list for Gulf County, Florida9.

[9] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

Table 12-13 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-13. Potential Impacts to Species/Critical Habitats managed by DOI

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle; Leatherback turtle, Loggerhead turtle	All of the project areas are within existing developed areas associated with each of these boat ramps and no additional disturbance of existing habitat is proposed. The areas for proposed and current facilities do not support nesting habitat for sea turtles; however sea turtle nesting could occur on beaches adjacent to each of these projects. Additional lighting or visitor use could disrupt normal nesting behaviors of sea turtles in nearby habitats. Conservation measures below should reduce potential impacts to an insignificant and discountable level. The main risk to sea turtles during construction and use of these ramps would come from boat collisions which could result in harm or mortality. Consultation has been completed with NMFS, theagency that has jurisdiction to review impacts to sea turtles in their estuarine and marine habitats.
Loggerhead proposed critical habitat	The Highland View component of the project borders currently proposed critical habitat area LOGG-N-32 encompassing nearshore reproductive habitat in Florida for Northwest Atlantic Distinct Population Segment of the loggerhead sea turtle (i.e., beaches and shorelines) (78 FR 18000) (Department of the Interior, 2013). PCEs for proposed loggerhead critical habitat include: 1) Suitable nesting beach habitat that: (a) has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides. 2) Sand that: (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and moisture content conducive to embryo development. 3) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. No other proposed or designated critical habitat for sea turtles occurs within or adjacent to the project area. Conservation measures below should ensure that PCEs of proposed critical habitat continue to function to support recovery of the species and no adverse modification or destruction of critical habitat should occur.
West Indian manatee	The counties in the project area are not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters. The main risk to manatees during implementation of this project is noise from in-water construction and risk to manatees during use of the new ramps from boat collisions which could result in harm or mortality. Conservation measures below are anticipated to reduce these potential impacts to an insignificant and discountable level.
Piping plover and Red knot	The main risk to Piping plovers and Red knots is from human disturbance while the birds are resting and foraging in habitats adjacent to work areas and from human disturbance if boaters choose to visit nearby islands. The proposed project could result in short term increases in noise during construction which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the individuals to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) the Trustees would expect this temporary displacement to be within normal movement patterns for either species and consider this effect insignificant and discountable. The proposed project will not result in any changes to shoreline habitats where either species is likely to forage or rest. Educational signage will be posted at all ramps reminding visitors of nearby bird resources and any protective

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Piping plover critical habitat	measures that may be necessary when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. Piping plover critical habitat is not designated in the project area but is nearby (where visitors may access it via these ramps) on St. Joe Peninsula. The primary constituent elements (PCEs) of wintering Piping plover critical habitat includes: 1) Intertidal flats with sand or mud flats (or both) with no or sparse emergent vegetation. 2) Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers. Such sites may have debris, detritus, or microtopographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. 3) Important components of the beach/dune ecosystem include surf-cast algae, sparsely vegetated back beach and salterns, spits, and washover areas. 4) Washover areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action. Project construction will not adversely modify or destroy critical habitat forPiping plover because the construction work will not be taking place in any of the habitats listed above. Visitation of nearby area will not alter any of the PCEs or result in adverse modification or destruction of critical habitat because the changes in the ramps are not certain to result in clear increases visits to these habitat areas.
St. Andrews beach mouse St. Andrews beach mouse critical habitat	Neither the St. Andrews beach mouse nor its critical habitat occurs within the project areas. Therefore, construction activities will not affect this species or its critical habitat. However, both the mouse and its critical habitat occur on the St. Joe Peninsula which could be accessed by visitors using the improved ramps. Mice or critical habitat could be disturbed if visitors travel to St. Joe Peninsula from the ramps. Conservation measures below are expected to minimize the risk of disturbance such that impacts are insignificant and discountable. Primary constituent elements (PCEs) for St. Andrews beach mouse critical habitat are: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages. Project construction will not adversely modify or destroy critical habitat for the St. Andrews beach mouse because the construction work will not be taking place in any of the habitats listed above. Conservation measures below are expected to minimize impacts to PCEs such that no

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
	adverse modification or destruction of critical habitat occurs from visitor use.
Gulf sturgeon and its critical habitat	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

Additional information for some of these species is provided below.

St. Andrews Beach Mouse and St. Andrews Beach Mouse Critical Habitat

Primary, secondary, and occasionally tertiary sand dunes with moderate cover of grasses and forbs, including sea oats (*Uniola paniculata*), bitter panicum (*Panicum amarum*), Gulf bluestem (*Schizachyrium maritimum*), beach dropseed (*Sporobolus virginicus*), and telegraph weed (*Heterotheca subaxillaris*) are considered preferred habitat of the St. Andrews beach mouse (Florida Natural Areas Inventory 2001). High, stable areas supporting sand live oak (*Quercus geminata*) may be important following hurricanes that remove substantial dune habitat. Although the Highland View boat ramp occurs adjacent to critical habitat for the St. Andrews beach mouse, the boat ramp is entirely within an industrial area that lacks suitable habitat for the beach mouse. Critical habitat for the beach mouse is located west of the boat ramp, on the opposite side of Highway 98.

Based on the Trustees' reviews of project materials in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that this project falls outside of NMFS Endangered Species Act (ESA) jurisdiction, as there was no identified route of affect. As a result, the project did not require further ESA evaluation from NOAA.

Piping Plover

Natural shorelines in the proposed project vicinity provide suitable winter migration resting habitat for the piping plover. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches and spoil islands (Haig 1992, as cited by USFWS 2013c). On the Gulf Coast, preferred foraging areas were associated with wider beaches, mudflats, and small inlets (USFWS 2013). While no piping plover critical habitat is located within the project sites.

Red Knot

The red knot, a federal candidate species, uses the state of Florida both for wintering habitat and migration stopover habitat for those that continue to migrate down to specific wintering locations in South America (Niles et al. 2008). Wintering and migrating red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks (Harrington 2001). Observations indicate that red knots also forage on oyster reef and exposed bay bottoms, and roost on high sand flats, reefs, and other sites protected from high tides (Niles et al. 2008). In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Threats to wintering and stopover habitat in Florida include shoreline development, hardening, dredging, deposition, and beach raking (Niles et al. 2008).

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan

Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column.

Based on the Trustees' reviews of project materials in coordination with representatives from NOAA's Habitat Conservation Division (HCD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that this project will not affect EFH because there is no route of affect associated with the project. As a result, the project did not require further EFH evaluation.

State-Listed Birds, MBTA, and BGEPA

All migratory bird species are protected under the MBTA. The nesting season in Florida is from February 15 to August 31.

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–712), respectively. Table 12-14 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-14. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. Seabirds may nest nearby.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-15.

Table 12-15. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	The project area is not an optimal area for shorebird foraging. Therefore, the Trustees expect foraging and resting birds to move to another nearby location, likely with better habitat, to continue foraging and resting. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented. Signage described above in the protected species summary table under "All" will include information to make visitors aware of nesting birds in nearby areas and any protective measures that are necessary.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. If the level of project activity startles foraging or resting birds, the Trustees would expect them to move a short distance and resume behaviors as noise will be localized to the existing ramp areas. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	should not be impacted because the project will occur during daylight hours only. If project activities occur during seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting seabirds or rookeries and their recommendations will be implemented. Signage described above in the protected species summary table under "All" will include information to make visitors aware of nesting birds in nearby areas and any protective measures that are necessary.

There are two bald eagle nests within 5 miles of the Highland View boat ramp, one 3.23 miles away and the other 3.48 miles away. The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's Bald Eagle Management Plan guidelines would be followed (FWC 2008).

Wildlife and Wildlife Habitat

Primary, secondary, and occasionally tertiary sand dunes with moderate cover of grasses and forbs, including sea oats, bitter panicum, Gulf bluestem, beach dropseed, and telegraph weed are considered preferred habitat of the St. Andrews beach mouse (Florida Natural Areas Inventory 2001). High, stable areas supporting sand live oak may be important following hurricanes that remove substantial dune habitat. The sand dune area within the Highland View boat ramp offers habitat suitable for the St. Andrews beach mouse.

Environmental Consequences

Protected Species

The USFWS reviewed the proposed Highland View Boat Ramp project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On May 1, 2014 the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect, five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), West Indian manatee, piping plover, and red knot (if listed), and St. Andrews beach mouse. The USFWS also concurred with the Trustees' determination that the project will not adversely modify or destroy critical terrestrial habitat for the Loggerhead turtle (if designated), Piping plover, or St. Andrews beach mouse. These conclusions were reached based upon the the contiion that if any lighting is installed it willbe wildlife friendly and comply with the guidance provided in the current edition of the FWC's Lighting Technical Manual. DEP and FWC will also coordinate with the USFWS Panama City Field Office to see if specific signage needs to be posted in the project area.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

State-Listed Birds, MBTA, and BGEPA

Bald eagles are not present at the project location so will not be affected. At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.55.5.5 Human Uses and Socioeconomics

12.55.5.5.1 Socioeconomics and Environmental Justice

Affected Resources

The proposed projects are in Gulf County, which is Florida's fifty-ninth most populous county (Table 12-16). Gulf County contains 0.084% of Florida's population (Florida Office of Economic and Demographic Research 2013). Home to approximately 15,863 residents, Gulf County has an average density of 28.1 individuals per square mile. White represents the largest group, comprising approximately 78% of the population of Gulf County. The second largest group was the Hispanic or Latino, representing 23.2%.

Table 12-16. Population characteristics for Gulf County compared to the State of Florida (U.S. Census 2010).

TOPIC	FLORIDA		GULF	
Population, 2010	18,801,310		15,863	
White alone	14,721,426	78.3%	12,405	78.2%
Black or African American	3,121,017	16.6%	3,030	19.1%
American Indian and Alaska Native alone	94,007	0.5%	79	0.5%
Asian alone	507,635	2.7%	63	0.4%
Native Hawaiian and Other Pacific Islander alone	18,801	0.1%	0	0%
Two or more races	357,225	1.9%	286	1.8%
Hispanic or Latino	4,361,904	23.2%	730	4.6%
White alone, not Hispanic or Latino	10,716,747	57.0%	11,723	73.9%
Homeownership rate, 2007–2011	69%		74.8%	
Median household income, 2007–2011	$47,827		$41,291	
Persons below poverty level, percent, 2007–2011	14.7%		17.5%	

Environmental Consequences

These projects would have a short-term, moderate, impact through the disruption of localized fishing, access to the St. Vincent National Wildlife Refuge, and the local retail sales (food, gasoline, or similar items). A few individuals, groups, businesses, properties, or institutions would be impacted. Impacts would be small and localized. These impacts are not expected to substantively alter social and/or economic conditions. Actions would not disproportionately affect minority populations and low-income populations.

Direct, short-term, moderate benefits through local job creation would result from construction activities. Long-term, indirect, moderate benefits would result from increasing recreational and fishing value of the area. Greater fishing success may increase the number of fishing trips in the area that could generate ancillary purchases such as license fees, fuel, equipment, or other ancillary purchases.

This project is not designated to create a benefit for any group or individual, but would provide benefits to a local and regional basis. Because the project occurs in an area that is not disproportionately minority or low income, there are no indications that the proposed living shoreline project would be contrary to the goals of Executive Order 12898 or would create disproportionate, adverse human health or environmental impacts on minority or low-income populations of the surrounding community.

12.55.5.5.2 Cultural Resources

Affected Resources

A review of the Florida Master Site File (FMSF) indicates that there is one previously recorded archaeological site located within the immediate vicinity of the proposed Highland View project area (FDHR 2013). This site, 8GU202, is the Gulf County Canal. As recorded, the site area begins at St. Joe Bay and terminates at the Intercostal Waterway, approximately 5.8 miles to the northeast. The canal was constructed in 1938 by Gulf County to aid in the development of the region. In 1943, the canal was incorporated into a Federal waterway project (FDHR 2013). While surveys have been completed in the vicinity of the canal, the canal itself has not yet formally been evaluated for listing on the National Register of Historic Places.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

Infrastructure

Affected Resources

The Highland View boat ramp is an existing, single-lane boat ramp and is surrounded by an L-shaped boarding dock and parking with a 20-vehicle/trailer capacity.

Environmental Consequences

The replacement and enhancement of the boat ramp will have short-term and minor impacts on the existing infrastructure. Improvements to the existing infrastructure would improve the experience of boaters.

12.55.5.5.3 Land and Marine Management

Affected Resources

Land uses surrounding the Highland View boat ramp include commercial, industrial, and residential land uses (FDEP 2008b). The projects would be located in a coastal area that is regulated by the federal CZMA and the Florida Coastal Management Act of 1978.

Environmental Consequences

Due to the existing Highland View boat ramp, zoning changes, amendment to land-use area, or comprehensive management plans would not be required. The long-term impact of the project would be minor because it would not affect overall use and management beyond the local project area. It would be consistent with current land use.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.55.5.5.4 Aesthetics and Visual Resources

Affected Resources

Directly east and west are public and private beaches that offer unobstructed views of the Gulf of Mexico and St. Vincent Island. The land use surrounding the Highland View boat ramp is commercial, industrial and residential (FDEP 2008b). The boat ramp is adjacent to the Highway 98 Bridge.

Environmental Consequences

Temporary impacts to visual resources would result from implementation of the proposed enhancement activities. Construction equipment would be temporarily visible to visitors and recreational users at the project access points (i.e., boat ramps and launch areas) and the surrounding area. Due to the Highland View boat ramp's position along the Highway 98 bridge and location within an industrial area, impacts to visual resources at this site would be minor and short term because the boat ramp is an existing facility.

12.55.5.5.5 Tourism and Recreational Use

Affected Environment

Tourism and recreation are common activities throughout the Florida panhandle region. The Highland View boat ramp is one of many boat ramps that offer access to the Gulf County Canal and St. Joseph Bay.

Environmental Consequences

The duration of the boat ramp construction projects is approximately 2 years. Closure of the Highland View boat ramp would have minor impacts on tourist and recreation because of the plethora of boat ramps in proximity to the site.

12.55.5.5.6 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Emergency Planning and Community Right-to-Know Act; and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

A review of the EPA's EnviroMapper revealed that there is one RCRA sites adjacent to the Highland View boat ramp (EPA 2013c).

Environmental Consequences

Project construction would require mechanical equipment that uses oil, lubricants, and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle

maintenance fluids. Because the project would repair an existing boat ramp, no impacts related to the existing RCRA site would be anticipated.

12.55.6 Summary and Next Steps

The proposed Highland View Boat Ramp project would improve the existing Highland View boat ramp in Gulf County. The proposed improvements include repairing and enhancing the existing boat ramp, replacing existing access and termination piers, and improving the parking to provide better facilities. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects would enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.56 Gulf County Recreation Projects: Project Description C (Improvements at Beacon Hill Veterans' Memorial Park)

12.56.1 Project Summary

The proposed Gulf County Beacon Hill Veterans' Memorial Park Improvements project would improve and enhance the existing facilities at the Beacon Hill Veterans' Memorial Park Gulf County. The proposed project will improve the park, including: the construction of a small amphitheater, pavilions, upgrade/replace existing restrooms and possible development of a nature trail and additional area for vehicle parking.. The total estimated cost of the project is $588,500.

12.56.2 Background and Project Description

The Trustees propose to improve and enhance an existing recreational area at the Beacon Hill Veterans' Memorial Park (see Figure 12-15 for general project location). The objective of the Gulf County Beacon Hill Veterans' Memorial Park Improvement project is to enhance and/or increase recreational beach use opportunities by improving the park. The restoration work proposed includes the construction of a small amphitheater, pavilions, upgrade/replace existing restrooms and possible development of a nature trail and additional area for vehicle parking..

Figure 12-15. Location of Gulf County recreation project – improvements at Beacon Hill Veterans' Memorial Park.

12.56.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Gulf County Beacon Hill Veterans' Memorial Park Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving the park. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including similar types of actions in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.56, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.56 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Gulf County Recreation Project – Improvements at Beacon Hill Veterans' Memorial Park project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.56.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving the Beacon Hill Veterans' Memorial Park. Performance monitoring will evaluate: 1) the construction of pavilions; 2) the construction of restrooms; 3) the building of a nature trail; 4) the construction of a new parking area; and 5) the construction of a small amphitheater. Specific performance criteria include: 1)

the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the park is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the recreational use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the park. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.56.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. Combined NRD Offsets for the Gulf County Recreation Projects, of which this is a component, are $4,237,200 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[10]

12.56.6 Costs

The total estimated cost to implement this project is $588,500. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[10] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.57 Gulf County Recreation Projects: Environmental Review C (Beacon Hill Veteran's Memorial Park)

12.57.1 Introduction and Background

Beacon Hill Veterans' Memorial Park is located in Gulf County, Florida. The proposed project will improve the park, including: the construction of a small amphitheater, pavilions, upgrade/replace existing restrooms and possible development of a nature trail and additional area for vehicle parking. Detailed construction methods and plans have not yet been developed for the proposed project and would be subject to the final design and contractor approach.

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf Coast in advance of the completion of the injury assessment process. Early restoration is not intended to and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement, the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the *Federal Register* on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This project in Gulf County was submitted as an Early Restoration project on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the requirements of the Oil Pollution Act (OPA), the project meets Florida criteria that Early Restoration projects occur in the eight-county panhandle area that deployed boom and was impacted by the Spill.

12.57.2 Project Location

Beacon Hill Veteran's Memorial Park is located off U.S. Highway 98 (US-98) south of Mexico Beach and north of Port St. Joe. The park consists of approximately 39.93 acres of land. Although a portion of the park is developed as facilities and baseball diamonds, the rest is undeveloped. Figure 12-16 and Figure 12-17 illustrate the project area.

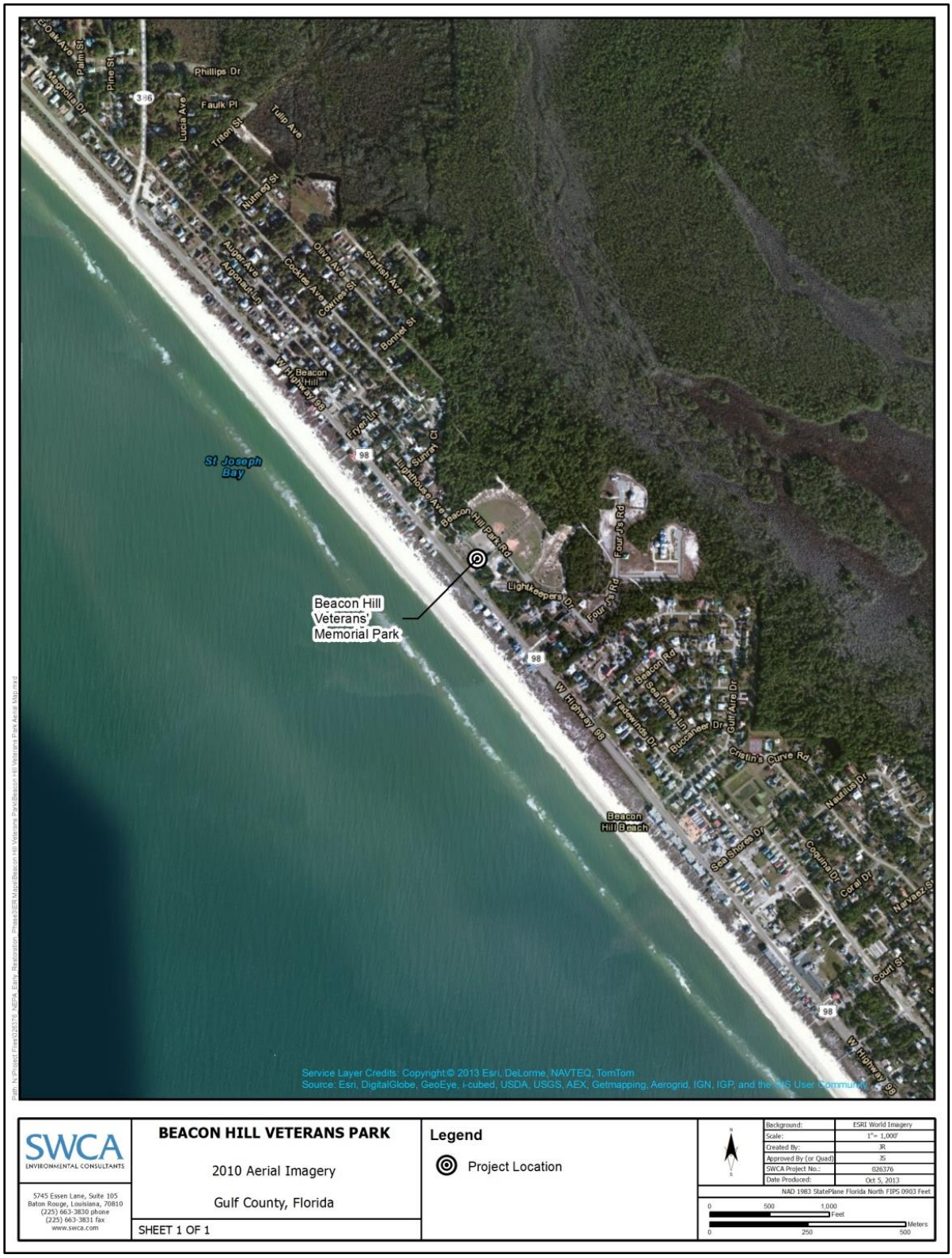

Figure 12-16. Illustration of the project area.

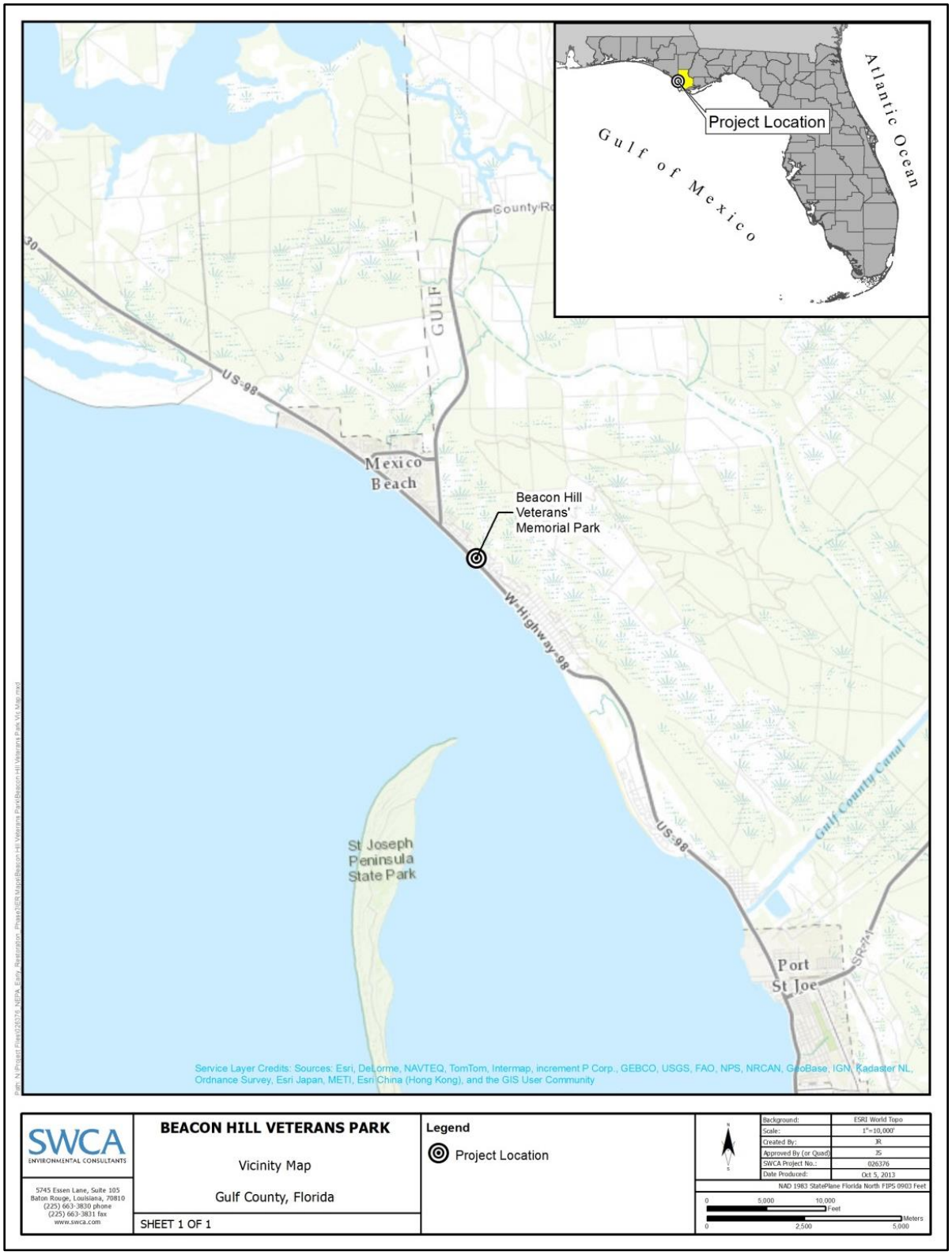

Figure 12-17. Project location map.

12.57.3 Construction and Installation

The proposed project involves the construction of park amenities at Beacon Hill Veterans' Memorial Park. Facilities would include an amphitheater, pavilions, restrooms, a nature trail, and a parking area.

Detailed construction methods and plans have not yet been developed for the construction of the proposed project and would be subject to the final design and contractor approach. All of the project work is in upland areas. A range of heavy construction equipment and tools would be required for construction of this project. The specific equipment used would vary with the different phases of the project.

Up to several feet of ground would be disturbed during construction. In the area where land would be added, sediment and other material would be placed. The area to be covered would be determined by final design. Ground would need to be graded and in some cases removed as part of the construction activities. Material planned for removal includes soil, rubble, and vegetation in the area where facilities, trails, and the parking area would be built.

The timing of proposed construction has not been finalized. The selected contractor would provide a construction schedule prior to beginning work.

12.57.4 Operations and Maintenance

The Gulf County Parks Department operates a variety of parks for outdoor recreation and leisure activities, including Beacon Hill Veterans' Memorial Park. Maintenance would fall under the purview of the Gulf County Parks Department, and would include tasks such as restroom checks and cleaning as well as removing debris and trash from the parking areas. No data are available at this time regarding any park-monitoring activities, such as tracking visitor usage.

12.57.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.57.5.1 No action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.57.5.2 Physical Environment

12.57.5.2.1 Geology and Substrates

Affected Resources

The park is located in the Gulf Coast Lowlands physiographic unit. Specifically, the park is located within the Apalachicola Coastal Lowlands. The topography of the area is mostly flat, but there are some areas with moderate rolling dunes and high rolling hills (FDEP 2006). The entirety of Bald Point State Park is classified as Beach Ridge and Dune (Qdb) deposits of the Pleistocene and Holocene eras (Scott 2001). Table 12-17 identifies soils found with in the park (NRCS 2004).

Table 12-17. Soils identified in the park.

SOIL NAME
Leon sand
Mandarin fine sand
Resota fine sand, 0%–5% slopes
Pickney-Pamlico Complex, depressional
Water

A sinkhole is a closed depression in the land surface that is formed by surficial solution or by subsidence or collapse of surficial materials due to the solution of near-surface limestone or other soluble rocks. Sinkholes are a natural and common geologic feature in areas underlain by limestone and other rock types soluble in natural water; they are one of the predominant landform features of Florida. The state has been classified into fthe Trustees' areas of sinkhole occurrence. Gulf County is categorized as Area IV with a carbonate rock cover more than 200 feet thick. Area IV consists of cohesive sediments interlayered with discontinuous carbonate beds. Sinkholes are very rare, but several large-diameter, deep sinkholes do exist. Cover-collapse sinkholes dominate in Area IV; these occur when a solution cavity develops in limestone to such a size that the overlying cover material can no longer support its own weight (FDEP 2013b).

Environmental Consequences

Mechanized equipment and hand tools would be used to complete the construction of the project. Some excavation of soils would occur; however, adverse impacts to geology and substrates would be minor. Disturbance would be detectable, but would be short term, small, and localized. There would be no long-term changes to local geologic features or soil characteristics. Erosion and/or compaction may occur in localized areas.

12.57.5.2.2 Hydrology and Water Quality

Affected Resources

Northwest Florida has seven major watersheds, all of which have been identified as priorities under the Surface Water Improvement and Management (SWIM) program. Water quality protection is the underlying goal of SWIM, along with the preservation and restoration of natural systems and associated

public uses and benefits (Northwest Florida Water Management District [NWFWMD] 2011). The park is part of the St. Andrews Bay watershed system, which includes St. Andrews, West, East, and North bays; St. Joseph Bay; and Deer Point Reservoir; as well as the respective surface water basins of each of these waterbodies. The total drainage area covers nearly 749,663 acres. The waterways are primarily used for transportation, seafood harvesting, recreation, and waste disposal. Broad issues for the St. Andrews Bay system include degradation through point and nonpoint pollution sources, habitat quality that is threatened by and degraded through sedimentation and deposition, and public education and awareness (Thorpe 2000).

There are no designated Outstanding Florida Waters (OFWs) by the State of Florida (Rule 62-302.700, Fla. Admin. Code) in the project area. Surface waters in the project area have been classified as Class III waters by the FDEP (FDEP 2006). Class III waters have the designated uses of fish consumption, recreation, and propagation and maintenance of a healthy, well-balanced population of fish and wildlife.

Impaired waters are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. St. Andrews Bay has been listed as an impaired waterbody for mercury in fish tissue and fecal coliform; however, total maximum daily loads (TMDLs) have not yet been adopted (Environmental Protection Agency [EPA] 2010).

Wetlands

Based on the National Wetland Inventory data, there are freshwater forested/shrub wetlands in the project area (USFWS 2013), although no wetland areas will be disturbed or affected by project activity.

Floodplains

Based on Federal Emergency Management Agency (FEMA) flood insurance rate maps (Panel 12045C0217G), the project appears to be in Zone X and Zone A. Zone X is defined as other flood areas, consisting of areas with a 0.2% chance of flood, or a 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, or areas protected by levees from a 1% annual chance flood. Zone A has no defined base flood elevations, and is an area of special flood hazard (FEMA 2009).

Environmental Consequences

The project plans for the park improvements have not yet been finalized. However, careful consideration would be given to the design of the park improvements to have the least effect on waters and wetlands within the park.

The effect on hydrology would be measurable but small and localized. Because project plans are not yet finalized, all efforts would be made to design the project elements to have the least possible effect on the local hydrology, and best management practices (BMPs) would be implemented. BMPs that may be implemented and would help avoid potential adverse impacts to water quality include:

- All construction would be performed in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.

- The contractor would submit a plan for control of surface water runoff in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.
- All construction adjacent to open water would be separated and confined by appropriate siltation screens and turbidity barriers to protect the quality of open water. However, for this project, no construction would occur adjacent to open water.
- Upon completion of construction, the site would be cleared of all construction materials and restored to its natural state as shown on the plan drawings.
- The contractor would be responsible for assuring compliance with all permit requirements.

In addition to construction BMPs, the contractor would implement BMPs for adequate erosion control. Erosion control is necessary to prevent damage to adjacent property, natural features, site property, and work in progress. Erosion control measures would be in place prior to any land alteration, and would be used throughout the construction process until soils are stabilized. Erosion control BMPs are as follows:

1. To protect against wind and stormwater runoff erosion, the contactor would place as appropriate hay bales and silt fencing with wire fence reinforcement, with sediment to be removed when it reaches approximately one-half the height of the barrier (see Figure 12-17).
2. Silt fences would be of optimal design and materials for adequate sediment control.
3. Side slopes created during construction would be stabilized at the earliest possible date to avoid erosion with adequate use of compacted soil and staked hay bales.
4. Any disturbed area not to be paved, sodded, or built upon would have a minimum vegetative cover of 80% and be mature enough to control soil erosion and survive severe weather conditions prior to final inspection.
5. Sod would be sufficiently grown and maintained to secure a dense stand of live grass.
6. The proposed road surface at the entrance would require a maintained condition of slope to prevent tracking or flow of mud onto the existing public roadway.

The project area is classified as multiple floodplain zones; these include the A and X zones. Impacts may result in a detectable change to natural and beneficial floodplain values, but the change would be expected to be small and localized. There would be no appreciable increased risk of flood loss, including impacts on human safety, health, and welfare.

The proposed project is not anticipated to require authorization by the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA).

12.57.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires that the Environmental Protection Agency (EPA) set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS have been set for six common air pollutants (also known as criteria pollutants), consisting of particle pollution or particulate matter, ozone, carbon monoxide, sulfur dioxide (SO_2), nitrogen dioxide, and lead. Particulate matter is defined as fine particulates with a diameter of 10 micrometers or less (PM_{10}), and fine particulates with a diameter of 2.5 micrometers or less ($PM_{2.5}$). When a designated air

quality area or airshed in a state exceeds the NAAQS, that area may be designated as a "nonattainment" area. Areas with levels of pollutants below the health-based standard are designated as "attainment" areas. To determine whether an area meets the NAAQS, air monitoring networks have been established and are used to measure ambient air quality. The EPA also regulates 187 hazardous air pollutants (HAPs) that are known or suspected to cause cancer or other serious health effects. Air quality in the Florida panhandle is in attainment with the NAAQs (EPA 2013a).

Greenhouse Gases

Gases that trap heat in the air are called greenhouse gases (GHGs). The primary GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_x), and fluorinated gases. Over the past century, human activities have released large amounts of GHGs into the atmosphere, which are contributing to global warming. Global warming is defined as the ongoing rise in global average temperature near the Earth's surface, and is known to cause changes in climate patterns.

According to the EPA, the average annual temperature in the southeast portion of the United States has increased by approximately 2.0 degree Fahrenheit (°F) since 1970. Winters, in particular, are getting warmer, and the average number of freezing days has decreased by 4 to 7 days per year since the mid-1970s. Most areas are getting wetter; autumn precipitation has increased by 30% since 1901 (EPA 2013b). In many parts of the region, the number of heavy downpours has increased. Despite the increases in fall precipitation, the area affected by moderate and severe drought has increased since the mid-1970s (EPA 2013b).

Average annual temperatures in the region are projected to increase from 4°F to 9°F by 2080. Hurricane-related rainfall is projected to continue to increase. Models suggest that rainfall will arrive in heavier downpours, with increased dry periods between storms. These changes would increase the risk of both flooding and drought. The coasts will likely experience stronger hurricanes and sea level rise. Storm surge could present problems for coastal communities and ecosystems (EPA 2013b).

Total GHG emissions in Florida from 1990 to 2007 have increased at an average rate of 2.1% per year. Total GHG emissions in 2007 were 290 million metric tons of CO_2 equivalent ($MMTCO_2E$). In 2007, 91% of GHG emissions in Florida were CO_2 emissions (FDEP 2010).

Environmental Consequences

Project implementation would require the use of heavy mechanized equipment, which would lead to temporary air pollution (e.g., criteria pollutants, HAPs, GHGs) due to emissions from the operation of construction vehicles and equipment. Any air quality impacts that occur would be minor due to their localized nature, short-term duration, and the small size of the project. Available BMPs would be employed to prevent, mitigate, and control potential air pollutants during project implementation. No air quality–related permits would be required. The project area is currently in attainment with NAAQS parameters. The proposed action would not affect the attainment status of the project area or region. A State Implementation Plan conformity determination (42 USC 7506 (c) is not required because the project area is in attainment for all criteria pollutants.

Project plans have not been finalized for this project. As such, it is unclear what equipment would be used and the duration of use for that equipment. The following table provides GHG emissions estimates for a range of construction and transportation equipment types that may be used during proposed

construction of park improvements. Each of these emissions is based on use of the heavy equipment over an 8-hour day (Table 12-18).

Based on the assumptions described in Table 12-18 below, GHG emissions would not exceed 25,000 metric tons per year. Given the projected construction-phase GHG emissions, the small scale and short duration of the project, and increased park use, predicted impacts on air quality from GHGs emissions would be anticipated to be minor for both the short and long term.

At the completion of the project, visitor use could increase due to the improved access. Increased exhaust emissions could affect air quality over the long term. However, adverse impacts to air quality would be expected to be minor because management actions could be taken to limit boat use.

12.57.5.3 Noise

Affected Resources

Noise can be defined as unwanted sound and noise levels, and its impacts are interpreted in relation to impacts on nearby visitors to the recreational areas and wildlife in the project vicinity. The Noise Control Act of 1972 (42 USC 4901–4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale that approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-19 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-18. Greenhouse gas emissions for various types of mechanized equipment.

EQUIPMENT DESCRIPTION[1]	TOTAL HOURS USED	CO_2 FACTOR-MT/100HRS*	CO_2 (MT)[2]	CH_4 FACTOR-MT/100HRS[3]	CH_4 (MT)	N_2O FACTOR-MT/100HRS	N_2O (MT)	TOTAL CO_2 (MT)
Dump trucks/ flatbed trucks	216	1.7	3.762	0.5	1.08	7.2	15.55	20.304
Concrete trucks	24	1.7	0.408	0.5	0.12	7.2	1.728	2.256
Pickup trucks[4]	2,304	1.1	25.344	0.35	8.064	4.4	101.376	134.784
Bobcat (bare and with auger mount)	480	2.65	12.72	0.9	4.32	10.6	50.88	67.92
Trackhoe (w/bucket/ thumb or vibratory attachments)	24	2.55	0.612	0.85	0.204	10.2	2.448	3.264
Dozer	24	2.25	0.54	0.65	0.156	1.08	0.2592	0.9552
Total	**3,072**							**229.48**

*mt = metric tons

[1] Emissions assumptions for all equipment types are based on 8 hours of operation.

[2] CO2 emissions assumptions for diesel and gasoline engines are based on EPA 2009.

[3] CH4 and NOx emissions assumptions and CO2e calculations are based on EPA 2011.

[4] Emissions assumptions for an 8-cylinder, 6.2-liter gasoline-engine Ford F150 pickup are based on DOE 2013 and 18-gallon (half-tank) daily fuel consumption.

Table 12-19. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from U.S. Department of Energy (1986).

Noise levels in the project area vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. Existing sources of noise in the project area are mainly from commercial traffic, with occasional overhead aircraft. Ambient natural sounds such as wind, waves, and wildlife also contribute to existing noise levels. Existing ambient noise levels in the project area would be generally low and predominantly result from daily boating activities.

Noise-sensitive receptors include sensitive land uses as well as individuals and/or wildlife that could be affected by changes in noise sources or levels due to the proposed project. Noise-sensitive receptors in the project vicinity include beach and park recreational use and wildlife. The project area is, for the most part, consistent with a developed urban environment. The shoreline of the project area supports a variety of residential and industrial developed areas, and the Gulf of Mexico supports commercial and recreational boat traffic.

Environmental Consequences

Machinery and equipment used during construction would generate noise. This noise may disturb wildlife and humans using the area, but would be kept to a minimum via BMPs such as working only during daytime hours, turning equipment off when idling, etc. Once constructed, the proposed project would not cause long-term noise impacts. Adverse impacts from noise would be minor and short term.

12.57.5.3.1 Biological Environment

Living Coastal and Marine Resources

Vegetation

Affected Resources

According to the Natural Vegetation of Florida, the project area is located on pine flatwoods vegetation type. This vegetation type is characterized by open woodlands of one of three species of pine: longleaf, slash, and pond pines. Many herbs, saw palmetto, shrubs, and small trees form an understory. Included

in general flatwoods are small hardwood forests, many kinds of cypress swamps, prairies, marshes, and bay tree swamps (Davis 1967).

A review of the Florida Department of Transportation's Efficient Transportation Decision Making tool (https://etdmpub.fla-etat.org/est/) indicates that although submerged aquatic vegetation (corals, seagrasses) are present off the coastline, they are not present in the proposed project area (FDOT 2013). Listed plant species with potential to occur in the project area include bent golden aster (*Pityopsis flexuosa*), Gulf Coast lupine (*Lupinus westinous*), Harper's beauty (*Harpero callisflava*), Panhandle spider lily (*Hymenocallis henryae*), white birds in a nest (*Macbridea alba*), and yellow butterwort (*Pinguicula lutea*).

Environmental Consequences

There would be multiple, discreet construction activities associated with this project. During construction of the amphitheater, pavilions, the restrooms, the nature trail, and the parking area, vegetation would be disturbed by grading, foundation placement, and building construction.

Construction of the facilities would require the permanent removal of vegetation in the affected areas. The use of equipment and disturbance of soil and existing vegetation would also introduce a risk of noxious weed or invasive vegetation species introduction. Overall, impacts on native vegetation from the construction effort may be detectable but would not alter natural conditions and would be limited to localized areas. Infrequent disturbance to individual plants could be expected, but without affecting local or range-wide population stability. Infrequent or insignificant one-time disturbance to locally suitable habitat could occur, but sufficient habitat would remain functional at both the local and regional scales to maintain the viability of the species.

Improvement to the park would likely bring in additional visitors. The additional human presence in the park may pose a long-term, minor effect to vegetation there. The more people that enter the park, the greater the likelihood that humans would trample, pick, or otherwise disturb plants. These events would occur in areas where new construction takes place. Impacts on native vegetation in the immediate vicinity of the new park improvements would be measureable but limited to local and adjacent areas. Occasional disturbance to individual plants could be expected. These disturbances could affect local populations negatively, but would not be expected to affect regional population stability. Some impacts might occur in key habitats, but sufficient local habitat would retain functionality to maintain the viability of the species both locally and throughout its range.

Project plans for the park improvements have not yet been completed. Therefore, the presence of threatened or endangered plants would be considered during the design phase of the project. Care would be taken to site park improvements in areas that minimize disturbance to vegetation.

Soil disturbance may encourage the encroachment of invasive or nuisance species. Those undeveloped areas disturbed during construction would be monitored, and invasive species would be removed.

Wildlife Habitat

Affected Resources

All project work would take place in a terrestrial environment. Terrestrial species known to reside in the park include but are not limited to osprey, migration falcons, deer, bear, raccoon, opossums, bobcats, foxes, other migratory birds, reptiles, and amphibians.

Environmental Consequences

The proposed project would be constructed in an upland environment. The proposed action has been evaluated for potential short- and long-term impacts to state and federally listed threatened and endangered species that can occur in and adjacent to the project areas based on available suitable habitat and restoration goals.

Although common wildlife may be disturbed from construction activities, these species live in an urban environment where ambient noise levels are high. Habitat conditions after construction would be similar to existing conditions, and no impacts to common wildlife would be anticipated.

Marine and Estuarine Fauna (Fish, Shell Beds, and Benthic Organisms)

Affected Resources

The proposed project would take place in upland environments isolated from the marine environment.

Environmental Consequences

There would be no in-water construction associated with this project. Therefore, there would be no impacts to marine and estuarine fauna.

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

DOI reviewed the species list for Gulf County, Florida where the project area is located[11] No habitat for listed, proposed, or candidate species managed by DOI known from Gulf County, Florida is present in the action area and no listed, proposed, or candidate species are expected to be in the action area. Therefore, DOI made a no effect determination for all listed, proposed, and candidate species known from Gulf County, Florida (McClain, 2014). No terrestrial critical habitat is designated or proposed in or near the action area; therefore, none will be adversely modified or destroyed. The USFWS concurred with this determination on March 10, 2014

[11] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

Based on our reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that this project falls outside of NMFS Endangered Species Act (ESA) jurisdiction, as it does not contain suitable habitat for species managed by NMFS. As a result, the project did not require further ESA evaluation from NOAA.

Essential Fish Habitat

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Habitat Conservation Division (HCD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that this project will not affect EFH because there is no EFH in the project area. As a result, the project did not require further EFH evaluation.

State-Listed Birds, MBTA, and BGEPA

There are numerous State of Florida–listed bird species with potential to occur in and around the park. These include Arctic peregrine falcon (*Falco peregrinus tundrius*), least tern (*Sterna antillarum*), southeastern American kestrel (*Falco sparverius paulus*), southeastern/Cuban snowy plover (*Charadrius alexandrinus tenuirostris*), piping plover (discussed above), and wood stork (*Mycteria Americana*). All migratory bird species are protected under the MBTA. The nesting season in Florida is from February 15 to August 31.

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's Bald Eagle Management Plan guidelines would be followed (FWC 2008).

The DOI species review also considered the presence of bald eagles (*Haliaeetus leucocephalus*) and migratory birds. No bald eagles or migratory birds are known to nest near the project area. However, migratory birds likely use the area for feeding, loafing, or resting. Because the project area is already used by the public for recreation and is adjacent to an active highway that will remain in operation throughout the project, construction activity is anticipated to represent a marginal source of additional disturbance to species already in the area. However, precautions during construction will be used to protect any migratory birds that may be feeding, loafing, or resting in or near the project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence. Therefore, no impacts to bald eagles and insignificant impacts to migratory birds are anticipated. The general measures to protect migratory birds should avoid take.

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.57.5.3.2 Human Uses and Socioeconomics

Socioeconomics and Environmental Justice

Affected Resources

The population of Gulf County is 15,863. Table 12-20 contains population/minority data for Gulf County and Florida (U.S. Bureau of the Census 2010).

Environmental Consequences

Improvements to the park would have a direct, beneficial effect for people that live near the area. Improvements would encourage more people to visit the park and participate in outdoor activities. This benefit the health and wellbeing of the local population. The proposed improvements to the park would draw more visitors to the county. Long-term, indirect, moderate benefits would result from increasing recreational value of the area.

Direct, short-term, moderate benefits through local job creation would result from construction activities. This project is not designed to create a benefit for any group or individual, but rather would provide benefits to a local and regional basis. Because the proposed project would occur in an area that is not disproportionately minority or low income (see Table 12-20), there are no indications that it would be contrary to the goals of Executive Order 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low-income populations of the surrounding community.

Table 12-20. Populations of Florida and project area county.

POPULATION	FLORIDA		GULF COUNTY	
2010 total population	18,688,787		15,863	
White alone	14,270,053	76.4%	12,384	78.1%
Black or African American alone	2,946,899	15.8%	2,962	18.7%
American Indian and Alaska Native alone	58,192	0.3%	63	0.4%
Asian alone	455,403	2.4%	46	0.3%
Native Hawaiian and Other Pacific Islander alone	11,005	0.1%	4	0.0%
Some other race alone	564,351	3.0%	119	0.8%
Two or more races	382,884	2.0%	285	1.8%
Median household income, 2007–2011	$47,827		$41,291	
Persons below poverty level, 2007–2011	14.7%		17.5%	

Cultural Resources

Affected Resources

A review of the Florida Master Site File (FMSF) shows no previously recorded archaeological sites or other historic properties present in the project area at this time.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

Land and Marine Management

Affected Resources

The park is maintained and operated by Gulf County Department of Maintenance. The land use surrounding the park is primarily public/semi-public (FDOT 2013). The proposed project would be located in a coastal area that is regulated by the federal CZMA and the Florida Coastal Management Act of 1978.

Environmental Consequences

Although the action would require several permits for the short-term construction period, it would not require a variance, zoning change, or amendment to a land-use area or comprehensive management plan. Improvements to the park would be consistent with current Gulf County land use. The long-term

impacts from the project would be minor because they would not affect overall use and management beyond the local project area.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

Tourism and Recreational Use

The park is situated along the coast with beach access. The park is used for swimming, sunbathing, and picnicking, and has paved parking lots. Numerous restaurants and bars are located near the park, with access to the beach. There is also opportunity for bird watching and nature appreciation.

Environmental Consequences

During the construction period, the visitor recreational experience would be adversely impacted by noise and visual disturbances associated with the use of construction equipment. The impact would be short term and minor because it would only affect some recreationalists in the areas where construction would be taking place. Users would likely be aware of the construction, but changes in use would be slight. The construction process would also limit recreational activities near construction areas for a short time to protect public safety. These limitations would be a minor inconvenience to visitors. Over the long term, minor beneficial impacts to tourism and recreational use would be expected due to the enhancement of recreational opportunities associated with improved facilities and accessibility.

Aesthetics and Visual Resources

Affected Resources

Existing aesthetics and visual resources from the project site are views of the beach, the trees, and the existing park facilities.

Environmental Consequences

Short-term impacts would occur to visual resources during construction activities due to the presence of equipment and materials. These impacts would be minor because they would only be visible from a small portion of the park, would not dominate the viewshed, or would not detract from current visitor activities. Long-term changes to visual resources would occur from the addition of an amphitheater, pavilions, restrooms, nature trail, and parking area. These changes would be readily apparent but minor because they are consistent with other park facilities and would not attract attention, dominate the view, or detract from visitor experiences.

Infrastructure

Affected Resources

Currently, the park has limited infrastructure. Although a portion of the park is developed as facilities and baseball diamonds, the rest is undeveloped. The park can be accessed by Beacon Hill Park Road. Utilities and public infrastructure facilities are currently available within the park.

Environmental Consequences

Because there is limited infrastructure at the park, adding to the facilities through construction of an amphitheater, pavilions, restrooms, nature trail, and parking area is anticipated to hook up to existing utilities and public infrastructure. Sewer lines or power lines may need to be extended to reach proposed new facilities. It is not anticipated that the proposed facilities would require an expansion of utilities that service the park. The improvements would have a beneficial, long-term impact because they would improve the visitor experience.

Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Emergency Planning and Community Right-to-Know Act; and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

A review of the EPA's EnviroMapper revealed that there are no CERCLA, RCRA, or Permit Compliance System (PCS) sites on or immediately adjacent to the park (EPA 2013c).

Environmental Consequences

Project construction would require mechanical equipment that uses oil, lubricants, and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.

12.57.6 Summary and Next Steps

The proposed Gulf County Recreation Project – Improvements at Beacon Hill Veterans' Memorial Park project would improve and enhance the existing facilities at the Beacon Hill Veterans' Memorial Park Gulf County. The proposed improvements include building, pavilions, restrooms, a nature trail, a parking area, and a small amphitheater. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational beach use opportunities by improving the park. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.58 Gulf County Recreation Projects: Project Description D (Windmark Beach Fishing Pier Improvements)

12.58.1 Project Summary

The proposed Gulf County Windmark Beach Fishing Pier Improvements project would construct a fishing pier at Windmark Beach in Gulf County. The proposed improvements include constructing a fishing pier into the Gulf of Mexico. The total estimated cost of the project is $1,353,550.

12.58.2 Background and Project Description

The Trustees propose to construct a large fishing pier at Windmark Beach in Gulf County (see Figure 12-18 for general project location). The objective of the Windmark Beach Fishing Pier Improvement project is to enhance and/or increase recreational fishing opportunities by constructing a fishing pier. The restoration work proposed includes constructing a large fishing pier into the Gulf of Mexico.

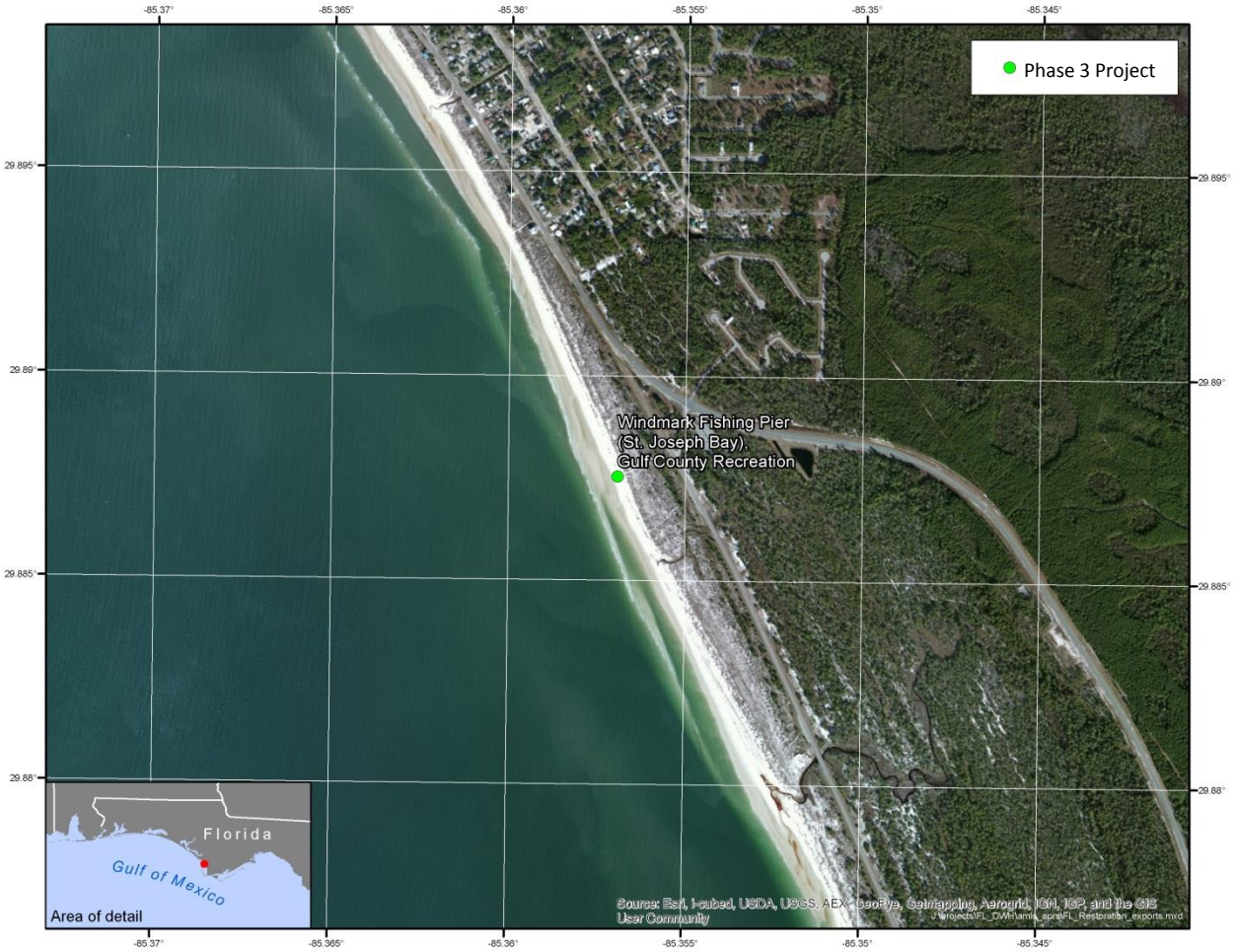

Figure 12-18. Location of Gulf County Recreation Project – Windmark Beach Fishing Pier Improvements.

12.58.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The proposed Gulf County Windmark Beach Fishing Pier Improvements project is intended to enhance and/or increase recreational fishing opportunities by constructing a fishing pier. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Florida counties have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.58, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration with the exception of geology and substrates and hydrology and water resources which would be minor, localized and long term. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.58 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Gulf County Recreation Project – Windmark Beach Fishing Pier Improvements project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.58.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by constructing a fishing pier at Windmark Beach. Performance monitoring will evaluate the construction of the fishing pier. Specific performance criteria include: 1) completion of the construction as designed and

permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the fishing pier is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the recreational use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the fishing pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.58.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. Combined NRD Offsets for the Gulf County Recreation Projects, of which this is a component, are $4,237,200 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[12]

12.58.6 Costs

The total estimated cost to implement this project is $1,353,550. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[12] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.59 Gulf County Recreation Projects: Environmental Review D (Windmark Beach Fishing Pier Improvements)

The purpose of this proposed project is to construct a new recreational fishing pier at Gulf County Windmark Beach Park at West Highway 98 (US-98) in Port St. Joe, Gulf County, Florida. The proposed project would provide improved public recreation fishing opportunities along the eastern shoreline of St. Joseph Bay.

12.59.1 Introduction and Background

In April 2011, the Trustees and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement, the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the *Federal Register* on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Final Phase III ERP/PEIS (ERP). This project in St. Joseph Bay within Gulf County was submitted as an Early Restoration project on the NOAA website and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the 8-county panhandle area that deployed boom and was impacted by the Spill.

The Florida Department of Environmental Protection (FDEP) proposes to construct a public fishing pier to provide Windmark Park visitors with recreational fishing opportunities. The proposed project would be located in St. Joseph Bay, Gulf County. The park currently does not have an over-water fishing facility. Surf fishing from the shoreline is currently offered to park visitors. Currently, visitors park their vehicles in the park's parking facility, which is located west of US-98, and visitors use an existing wooded boardwalk to access an existing restroom and to cross the backdune areas east of old US-98 to access the beach. There is no existing dune cross-over west of old US-98. Currently, an established unimproved pathway though the beach dune area is used by visitors to access the beach. The existing parking lot consists of an impervious paved surface with approximately 75 parking spaces and vegetated median dividers.

12.59.2 Project Location

The proposed project would be located in St. Joseph Bay, a natural sound separated from the Gulf of Mexico by St. Joseph Peninsula in the Florida panhandle region. The specific project site would be located immediately south of St. Joe Beach at Windmark Beach Park, West U.S. Highway 98 (27° 42' N; 80° 15' 6 W), Port St. Joe, Class III Waters of St. Joseph Bay (Non-Aquatic Preserve), Gulf County, Florida (see

Figure 12-19).

12.59.3 Construction and Installation

Final plans the proposed fishing pier have not been completed. However, considering conditions at the proposed site and plans for similar proposed and existing piers, the proposed fishing pier could be up to 1,200 feet long and 16 feet wide extending generally southwest from beach into the waters of St. Joseph Bay as indicated in Figure 12-20. At the end of the pier a small section would be oriented perpendicular to the rest of the pier and have dimensions of approximately 60 feet long by 16 feet wide. Based on these dimensions the pier would have an overall total area of 20,160 square feet.

Access to the pier will begin from the existing parking areas at Windmark Beach Park with the construction of dune walkovers. The dune crossover would be constructed using following current best practice guidelines (e.g., USFWS, 2013c) in accordance with the engineering requirements of the final project design to provide a clear means for visitors to access the pier without having to walk directly through the dunes between the parking area and beach at the project site. As a result of this controlled access the project would help minimize contact and potential adverse impacts to identified critical habitat for the St. Andrews Beach Mouse.

The final orientation of the pier will also be evaluated as part of the effort to develop final plans. As part of this assessment, a survey of submerged aquatic vegetation (SAV) in the area would be completed. Should the site assessment for the project identify SAV in the proposed project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented. Among other elements this would require placing pilings for the dock expansion a minimum of 10 feet apart. Orientation options for the fishing pier will also consider site specific features such as sand bars off the point and the bathymetry of the area.

Based on conceptual plans for similar fishing piers, it is assumed that the pier will be constructed using 8" diameter fiberglass pilings that are pre-filled with concrete. Based on the length and shape of the pier, up to 400 pilings may be required. These pilings will be placed using water-jetting to set the piles to within 5 feet of their desired final depth. Following the water jetting, a vibratory hammer will be used to lower the pilings the remaining 5 feet to their final depth. Final construction plans will also consider and account for options would minimize disruption to the aquatic environment including available BMPs (e.g., use of bubble curtains). All decking, cross members, and railings for the pier will be made of timber. Following placement of the pilings, the timber cross members will be placed from the water and then the rest of the pier will be built out from shore. When complete, all pier pilings will incorporate

pointed covers to discourage/minimize birds (e.g., laughing gulls) having a convenient perch from which to predate on nearby nesting birds.

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) would be implemented and adhered to. Among the significant aspects of these provisions is the requirement to stop operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition. This provision would also apply to marine mammals such as dolphins.

During construction BMPs for erosion control would also be implemented and maintained at all times during upland activity to prevent siltation and turbid discharges into surface waters. Methods could include, but are not limited to, the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. The direct goal of these actions is to limit sediment discharges into the water that would adversely affect turbidity. Staging of most construction materials would occur in the existing parking area although some materials may be delivered by barge.

Finally, prior to the opening of the pier to the public, fixed signs that are consistent with National Oceanic and Atmospheric Administration (NOAA) and State of Florida guidelines with instructions on what to do in the event of hooking a listed species (e.g., sea turtle) would be placed at the entrance to the fishing pier and strategically at fixed intervals along its length. Additionally, a kiosk/booth would be placed at the entrance to the pier with additional information for best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash cans, not feeding dolphins) designed to limit potential adverse impacts to species. The signage in this kiosk would include the NMFS “Dolphin Friendly Fishing and Viewing Tips” sign with NMFS’ “Protect Dolphin” signs along the pier and signage/notices not feed gulls. Monofilament recycling bins will be installed at regular intervals along the pier. These would be emptied regularly by city/county staff as part of the project maintenance activities, and fishing line recycled. Further, any lighting installed on the pier or addressed as part of the project will be wildlife friendly and comply with the guidance provided in the current edition of the FWC’s *Lighting Technical Manual*. Finally, no fish cleaning stations will be included in the design and construction of these piers to help mitigate/avoid issues of species attraction to the pier.

Total construction time is estimated to take approximately 12 months.

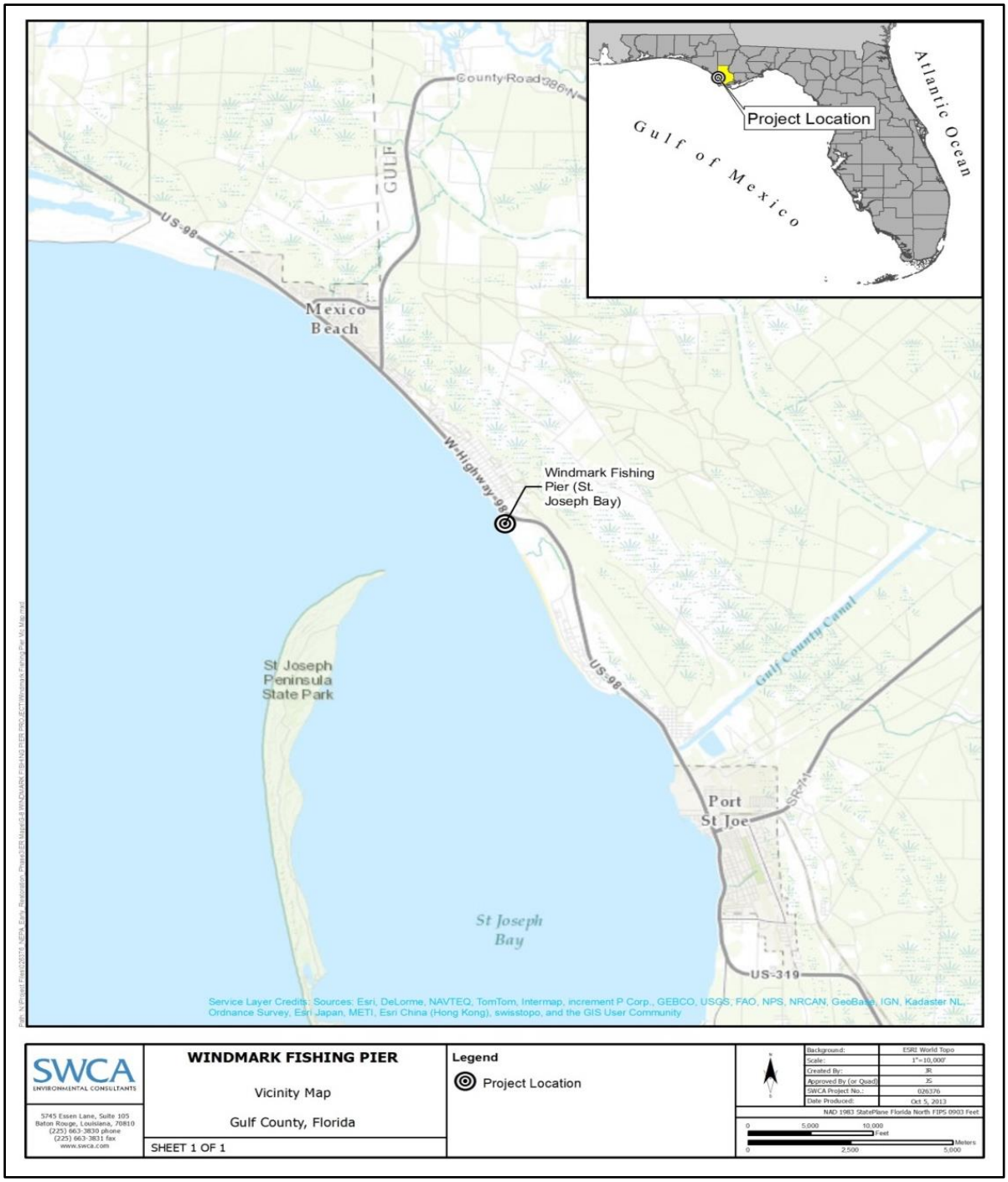

Figure 12-19. Windmark Fishing Pier, Windmark Park, St. Joseph Bay, Gulf County, Florida.

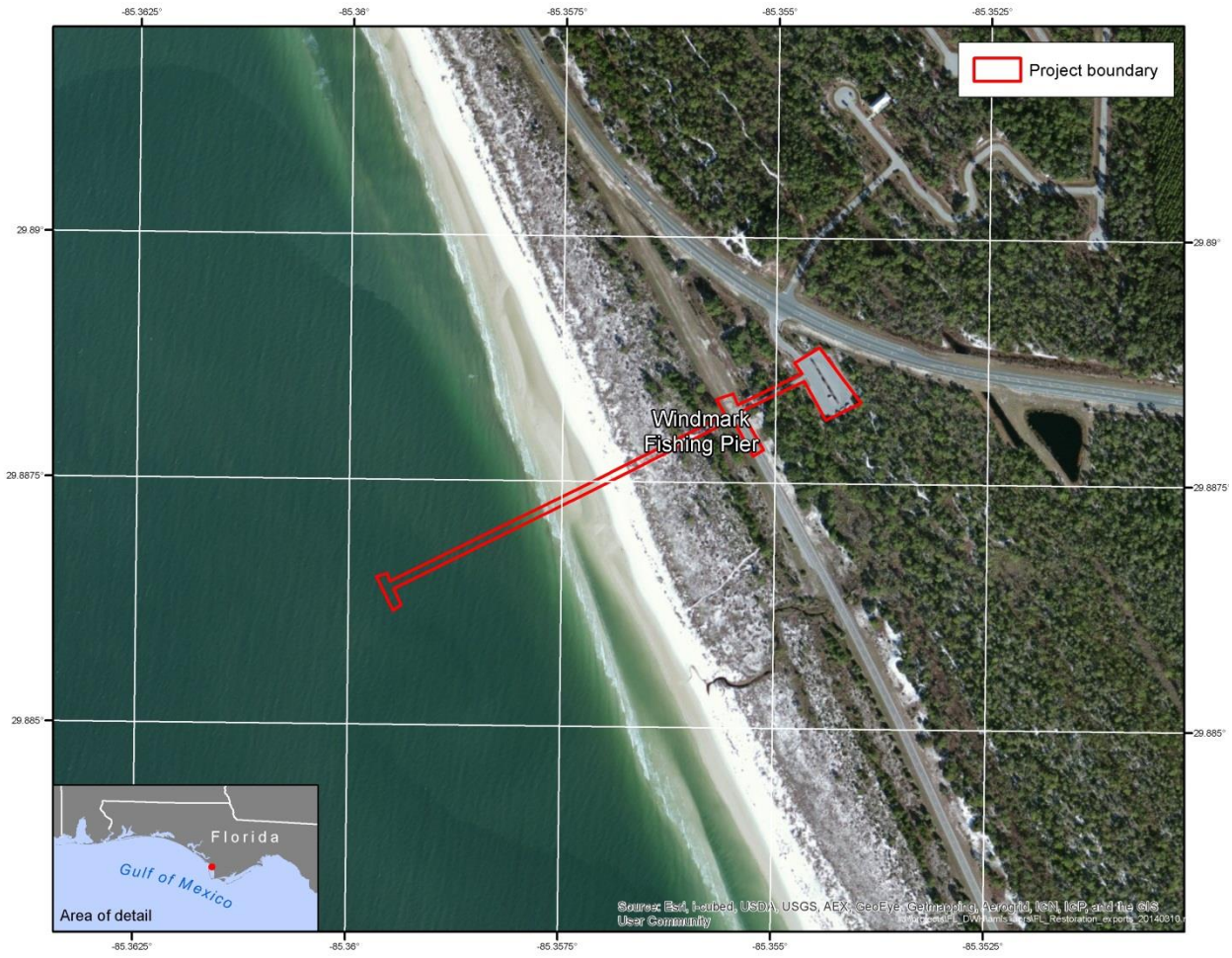

Figure 12-20. Proposed fishing pier conceptual construction location map.

12.59.4 Operations and Maintenance

This project would incorporate a mix of monitoring efforts to ensure that project designs and BMPs are correctly implemented during construction, and, in a subsequent period defined by contract, where corrective actions may be required.

BMPs, including those to prevent degradation of ambient water quality parameters, would be used throughout construction activities. These may include monitoring the integrity of turbidity control screens and/or other devices to control erosion, sedimentation, and turbidity during piling installation and any proposed excavation activities required for pier construction. Other water quality parameters that may be monitored during construction include greases and oils, dissolved oxygen, pH, salinity, and temperature. In addition, the project contractor and permittee would comply with the U.S. Army Corps of Engineers (USACE) and FDEP Standard Sea Turtle and Smalltooth Sawfish Construction Conditions and the Standard Manatee Conditions for In-Water Work (USFWS 2011) throughout construction to prevent accidental harm to these and other protected species that may enter the immediate project area. These standards require monitoring the construction area to prevent harm to manatees, sea turtles, and smalltooth sawfish should these species enter or be observed within the immediate project limits.

Post-construction performance monitoring of the actual levels of use of the proposed pier would be proposed by FDEP and implemented by Gulf County. Gulf County Parks and Recreation staff would be responsible for monitoring and maintenance of the proposed project during construction and post-construction phases.

Literature reviews indicate that several federally listed plants and that listed wildlife species may also occur in or adjacent to the project area (see Section 12.58.5.3). The project area is also adjacent to designated critical habitat for one wildlife species, and contains critical habitat for a second (see Section 12.58.5.3).

12.59.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.59.5.1 No action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.59.5.2 Physical Environment

12.59.5.2.1 Geology and Substrates

Affected Resources

The proposed project site would be located on relic Younger Pleistocene – Holocene Beach Ridges of northeast Port St. Joe (Florida Department of Natural Resources 1991). St. Joseph Bay is a non-estuarine lagoon formed between St. Joseph Spit and the mainland of Gulf County. In addition, part of St. Joseph Bay is designated as a Florida Aquatic Preserve, meaning that the intent of the State of Florida is to preserve the bay in its natural state. The proposed project would be located in the northern portion of the mainland side of the bay, outside of the Aquatic Preserve. Water depths within St. Joseph Bay range from less than 5 feet at the southern, enclosed end to approximately 30 feet near the northern tip of the spit. Bottom sediments are predominantly sand, with localized areas of clayey silt, silty sand, and clay sand and gravel-sand mixtures.

The following soil associations (NRCS 2013) for Gulf County, Florida, were identified within the proposed project area:

- Lakeland-Eustis-Blanton: This association is described as well-drained to moderately well-drained soils with predominantly thick to moderately thick acid sands.
- Lakeland-Eustis-Norfolk: This association is described as well-drained to moderately well-drained soils with predominantly thick to moderately thick acid sands.

- Blanton-Klej: This association is described as well-drained to moderately well-drained soils with predominantly thick to thin acid sands, some of which overlie finer textured subsoils.
- Norfolk-Ruston-Orangeburg: This association is described as well-drained, undulating, upland soils with loamy fine sand surface soils and sandy clay loam subsoils.
- Magnolia-Faceville-Tifton: This association is described as well-drained, undulating, upland soils with loamy sand surface soils and fine sand to clay loam to fine sand clay subsoils.
- Shubuta-Cuthbert-Lakeland: This association is described as excessively drained to moderately well-drained, sloping to very-steep coarse sands, loamy sands, and sandy clay loams of the uplands that have a sandy clay to clay subsoil.
- Leon-Blanton-Plummer: This association is described as somewhat poorly drained soils, soil with predominantly thick acid sands with organic pans, interspersed with soil without pan formation.
- Scranton-Ona: This association includes somewhat poorly drained soils with predominantly thick acid sands with dark surface soils.
- Goldsboro-Lynchburg: This association includes well-drained to moderately well-drained soils with predominantly thick to thin acid sands, some of which overlie finer textured subsoils.
- Plummer-Rullege: This association includes poorly to very poorly drained soils, and soils with predominantly thick to thin sandy loam surface soils overlying finer textured subsoils.
- Tidal Marsh-Coastal Beach-Coastal Dune: This association is described as regularly flooded organic and mineral deposits and unstable sands along the seashore.
- Freshwater Swamp-Marsh: This association includes regularly flooded, very poorly drained soils with high organic and mineral deposits.

Environmental Consequences

Construction activities would involve ground disturbance, such as foundations and piles or piers placed in the upland portion of the project site. Submerged substrates would also be disturbed from placement of piles and riprap, which may be required for securing the pier to the shoreline. There would be short-term impacts to submerged sediments that were disturbed during construction. These sediments would settle back onto the sea floor shortly after construction was completed. Upland soils would be disturbed during construction as well, but those would be re-contoured and stabilized after construction was complete. Where infrastructure was placed, soils would be permanently removed or converted to hard substrate or features. This would be a long-term minor effect limited to the discreet areas where hard structures were placed.

12.59.5.2.2 Hydrology and Water Quality

Affected Resources

The proposed project area is located in Class III waters of the State, approximately 2 miles east-northeast of the St. Joseph Bay Aquatic Preserve as designated by the State of Florida. Nonetheless, the proposed project area has good ambient water quality conditions to promote public welfare and safety to those who use the waterbody for recreational purposes and to maintain natural resource enhancement. St. Joseph Bay is not markedly influenced by the inflow of freshwater, with salinity levels similar to those of the Gulf of Mexico.

Water depths, depending on tidal phases, within the project vicinity range from 5 to 30 feet deep. However, specific soundings within the immediate project area have not been collected to date. MHW and mean low water (MLW) depth soundings would be collected during the design phase of the project to determine whether water depths were adequate for barge access to the project area to prevent prop dredging of the submerged lands. In addition, water depths will be needed to design the pier walkway and terminus orientation and dimensions.

Environmental Consequences

Project installation activities would use BMPs, including impact avoidance of existing ambient water quality parameters. The timing of installation would depend on the timing of funding availability and the contract award along with any permit constraints required as a result of listed species considerations. Adverse impacts to hydrology and water quality would be minor because support pilings would be driven into place and dredging would not be proposed. Short-term turbidity levels above background may be expected as a result of sediment disturbance during piling installation. However, BMPs would be employed to contain suspended solids and as conditioned by state and federal permits, and all areas potentially disturbed by construction must be contained using turbidity screens or similar devices to protect ambient water quality parameters. Furthermore, the contractor would monitor water quality during construction to ensure that state water quality standards were being maintained. Long-term adverse impacts to water quality would not be expected as a result of the proposed project. Short- and long-term adverse impacts to the hydrology of the proposed project area as a result of structure installation would be expected to be minor.

In-water work would require authorization from the USACE and FDEP. Prior to construction, the proposed project would require a Clean Water Act Section 404/Rivers and Harbors Act Section 10 permit from the USACE to construct the pier over waters of the U.S. and for any proposed excavation waterward of MHW limits. Also, in accordance with Chapter 373 Florida Statutes (FS) and Rule 62-346, Florida Administrative Code (FAC), the project would require an ERP from the FDEP, and in accordance with Chapter 258, Fla. Stat., a Letter of Consent or State Submerged Lands Lease (SSL) would be required from the Board of Trustees of the Internal Improvement Trust Fund prior to construction to construct and operate the proposed fishing pier.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the Corps and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

12.59.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS have been set for six common air pollutants (also known as criteria pollutants), consisting of particle pollution or particulate matter, ozone, carbon monoxide, sulfur dioxide (SO_2), nitrogen dioxide, and lead. Particulate matter is defined as fine particulates with a diameter of 10 micrometers or less (PM_{10}), and fine particulates with a diameter of 2.5 micrometers or less ($PM_{2.5}$). When a designated air

quality area or airshed in a state exceeds the NAAQS, that area may be designated as a "nonattainment" area. Areas with levels of pollutants below the health-based standard are designated as "attainment" areas. To determine whether an area meets the NAAQS, air monitoring networks have been established and are used to measure ambient air quality. The EPA also regulates 187 hazardous air pollutants (HAPs) that are known or suspected to cause cancer or other serious health effects.

Air quality in the Florida panhandle is in attainment with the NAAQS (EPA 2013a). The St. Andrew State Park, Bay County, is the closest Northwest District Air Program (NDAP) air monitor site currently operating near the proposed project area. The St. Andrew State Park monitor in Panama City records ozone and $PM_{2.5}$ concentrations. Readings at this monitor for the last 3 years show attainment with the NAAQS for ozone and $PM_{2.5}$ (FDEP 2013). SO_2 attainment data were not available (EPA 2013c).

Greenhouse Gases

Gases that trap heat in the air are called greenhouse gases (GHGs). The primary GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_x), and fluorinated gases. Over the past century, human activities have released large amounts of GHGs into the atmosphere, which are contributing to global warming. Global warming is defined as the ongoing rise in global average temperature near the Earth's surface, and is known to cause changes in climate patterns.

According to the EPA, the average annual temperature in the southeast portion of the United States has increased by approximately 2.0 degree Fahrenheit (°F) since 1970. Winters, in particular, are getting warmer, and the average number of freezing days has decreased by 4 to 7 days per year since the mid-1970s. Most areas are getting wetter; autumn precipitation has increased by 30% since 1901 (EPA 2013b). In many parts of the region, the number of heavy downpours has increased. Despite the increases in fall precipitation, the area affected by moderate and severe drought has increased since the mid-1970s (EPA 2013b).

Average annual temperatures in the region are projected to increase from 4°F to 9°F by 2080. Hurricane-related rainfall is projected to continue to increase. Models suggest that rainfall will arrive in heavier downpours, with increased dry periods between storms. These changes would increase the risk of both flooding and drought. The coasts will likely experience stronger hurricanes and sea level rise. Storm surges could present problems for coastal communities and ecosystems (EPA 2013b).

Total GHG emissions in Florida from 1990 to 2007 have increased at an average rate of 2.1% per year. Total GHG emissions in 2007 were 290 million metric tons of CO_2 equivalent ($MMTCO_2E$). In 2007, 91% of GHG emissions in Florida were CO_2 emissions (FDEP 2010).

Environmental Consequences

The proposed project would include use of a barge supporting a crane to conduct in-water construction. In addition, a Bobcat or track hoe and dump truck would be used for shoreline excavations to accommodate the structure. A boat would be used to deploy construction workers to the in-water construction areas and for safety operations. Construction of the project would be anticipated to take approximately 2 years to complete. Given that the project location would be on the coastal shoreline of the Gulf of Mexico, onshore winds can be expected to dissipate emissions from heavy equipment and barge engines. Based on the estimated 1,400 days of combined equipment operation, the project would be estimated to contribute approximately 658.6 metric tons of total CO_2 equivalent emissions (see Table

12-21); well below the EPA threshold of 25,000 metric tons per year for GHG emissions. Therefore, the proposed project would result in a minor impact to ambient air quality.

Table 12-21. Estimated greenhouse gas emissions during the 2-year construction period for the Windmark Fishing Pier.

CONSTRUCTION EQUIPMENT	NO. OF DAYS OPERATED[1]	CO_2 (METRIC TONS)[2]	CH_4 (CO_2E) (METRIC TONS)[3]	NO_X (CO_2E) (METRIC TONS)	TOTAL CO_2E (METRIC TONS)
Barge/crane	400	116.0	0.04	0.4	116.44
Tractor trailer	400	140.0	0.08	0.8	140.88
Track hoe	200	70.0	0.04	0.4	70.44
Dump truck	200	68.0	0.04	0.4	68.44
Boat	200	260.0	0.4	2.0	262.4
Total					**658.6**

[1] Emissions assumptions for all equipment are based on 8-hour days (5 days per week) of operation per piece of equipment over a 6-month construction period.

[2] CO_2 emissions assumptions for diesel and gasoline engines are based on EPA (2009).

[3] CH_4 and NO_X emissions assumptions and CO_2e calculations are based on EPA (2011).

12.59.5.2.4 Noise

Affected Resources

Noise levels in the proposed project areas vary depending on the season, time of day, number and types of noise sources, and distance from noise sources. The project vicinity would be mostly rural with private residential and retail commercial areas (Port St. Joe). Existing sources of noise in the project area are local traffic associated with Highway 98, recreational boating, and occasional overhead aircraft. Ambient natural sounds such as wind, waves, and wildlife also contribute to existing noise levels. Existing ambient noise levels in the Aquatic Preserve are generally low and predominantly result from daily boating activities.

Noise-sensitive receptors include sensitive land uses as well as individuals and/or wildlife that could be affected by changes in noise sources or levels due to the proposed project. Noise-sensitive receptors in the project vicinity include beach and park recreational use and wildlife. The project area would be, for the most part, remotely located.

Table 12-22. Typical noise levels for common sources.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from U.S. Department of Energy (1986).

Environmental Consequences

Instances of increased noise would be expected during the construction phases associated with the barge transport deliveries and in-water pier construction. The proposed project would generate construction noise associated with equipment used to drive piles into place and move stringer lumber for pier deck and terminus construction, shoreline excavation (if necessary), and use of watercraft for construction crew and materials transport. In the short term, machinery and equipment used during construction to deliver material and construct the pier would generate noise, which may disturb wildlife and humans using the area. These noise levels would be kept to a minimum by BMPs such as turning boats off during idling and working only during daylight hours. Noise generated from outboard motors and vessel maneuvering to transport and install the decking material and pilings would be no more than that of commercial watercraft in the general work area. Noise from driving pilings into place is expected to be the loudest during construction, and may be heard several miles away from the project site. Adverse impacts from noise during the construction phase would be temporary but may occur for up to 2 years with periods of temporary shut-down due to inclement weather, holiday seasons, weekends, etc. Port St. Joe is located approximately 1 mile north of the project area. Some housing developments and commercial retail areas (i.e., Highland View) are located within 5 miles south of the proposed project site. Considering the relatively open landscape of the immediate project vicinity, noise generated from the proposed project would be expected to be minor to moderate relative to the open landscape, and anticipated moderate noise levels, as a result of pile driving, would be short-term for the duration of the project. Once built, the proposed project would not cause any long-term noise impacts.

12.59.5.3 Biological Environment

12.59.5.3.1 Living Coastal and Marine Resources

Vegetation

Affected Resources

According to Ecosystems of Florida, the project area would be located on Dunes and Maritime Forests habitat. This habitat type is mostly on excessively drained deep quartz sands deposited by waves to form beaches fringing barrier islands and the mainland, which have been reworked by shore drift and wind forming partially vegetated sandy dunes (Myers and Ewel 1991). Based on aerial reviews, the proposed project site appears to contain mainly unvegetated sandy beach and coastal dunes.

The specific project site would be located on the mainland shoreline of St. Joseph Bay, north of the Aquatic Preserve limits. Waterward of MHW limits, the project area would consist of a gradually sloped, intertidal sandy bottom that is periodically exposed during extreme low tides. The intertidal and submerged lands habitat provides favorable conditions to support the occurrence of submerged aquatic vegetation (SAV).

The estuarine environment and shallow water conditions nearby may contain surveyed SAV habitat. Based on project site conditions, two state and federally listed plant species have the potential to occur in the project area: Gulf Coast lupine (*Lupinus westinous*) and Johnson's seagrass (*Halophila johnsonii*).

Environmental Consequences

Based on the preliminary site plan proposed by Gulf County, the project area would not involve clearing of vegetation from the beach dunes. Some minor excavation is proposed on the non-vegetated areas of the beach shoreline to accommodate project construction. The proposed project's in-water construction area would occur in intertidal and submerged areas of the coastline. Project impacts resulting from construction of the proposed action would be localized and not involve disturbances of existing dune vegetation. BMPs would include installation of protective barrier fencing to prevent construction disturbances (limited land clearing for project site access and work staging areas) to the existing dune systems. As a result, sufficient dune habitat would remain functional throughout and following completion of the proposed project construction. However, should project construction take place in SAV habitat, the project would be designed in a manner sensitive to seagrasses. Design modifications to reduce potential impacts to SAV habitat would include minimum 1-inch deck plank spacing, raising deck and pier terminus elevation to 5 feet above MHW, and aligning the main accessway in a manner to allow maximum sunlight penetration through the water column to reach SAV. Therefore, any potential impacts to dune vegetation and seagrasses within the project area would be considered minor.

The FDEP would require permits and impose reasonable conditions to assure that the construction would comply with the provisions of Chapter 62-346.050 (3), Fla. Admin. Code, which states in part that dredging and filling in, on, or over surface waters of the State remain subject to the requirements of Chapter 62-312, Fla. Admin. Code, including the need to obtain a separate permit under that chapter until the effective date of the rules adopted under Section 373.4145(1)(b), F.S. The FDEP permit also grants state-owned Submerged Lands Authorization from the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, Section 253.77, F.S., and Chapter 258, F.S.

Wildlife Habitat

Affected Resources

The beach and dune communities in the proposed project area provide forage habitat for many species of wildlife, including marine and estuarine invertebrates, wading birds (herons and egrets), shoreline birds (gulls, terns, sandpipers), brown pelicans (*Pelecanus occidentalis*), and birds of prey that feed on juvenile and adult fish (FDEP 2008). Urban and open vacant land adjacent to the project vicinity may serve as a refuge and staging area for many common passerine birds during migration, and large concentrations of shorebirds are sometimes observed feeding on the shoreline and exposed intertidal areas during low tide. Protected wildlife (such as sea turtles and manatee, discussed in detail below) also forage on or within seagrass communities occurring in the vicinity of the proposed project.

St. Joseph Bay is a designated Important Bird Area of more than 8,500 acres that is made up of several parcels: Black's Island, Eglin Air Force Base Test Site, Palm Point, St. Joseph Bay Buffer, T.H. Stone Memorial Park, and St. Joseph Peninsula State Park. These six sites that surround and form St. Joseph Bay are regionally important for breeding brown pelicans (Black's Island), breeding snowy plovers (*Charadrius alexandrinus*) (Palm Point), wintering shorebirds, migrant raptors (St. Joseph Peninsula State Park), neotropical migrants (St. Joseph Peninsula State Park), and other species (National Audubon Society 2002). Wintering piping plovers occasionally visit the site, but do not nest on-site. No terrestrial wildlife (non-bird) surveys have been conducted in the project area; however, based on the types of

habitat present, elevation, and location, it would be expected that ruderal species such as raccoon (*Procyon lotor*), opossum (*Didelphimorphia*), gray squirrel (*Sciurus carolinensis*), and other non-game mammals may be present in upland areas of the project vicinity.

Environmental Consequences

The proposed project would occur over water near the shoreline and at the beach within the existing park boundaries. The proposed construction activities would include in-water work that would likely disturb foraging birds or other wildlife due to turbidity, acoustical vibration, and noise impacts during barge/crane operation, pile driving, pier deck construction, construction crew and equipment transport by small draft vessels, outboard engine operation, and shoreline excavation activities to accommodate pier construction. The proposed operation plans of the fishing pier include use of waste and recycling materials receptacles to encourage users to properly dispose of non-recyclable waste and recyclable waste such as monofilament and plastic bottles to reduce potential impacts to wildlife. Although construction of the pier may take up to 2 years to complete, potential impacts would be short-term and minor. Wildlife and birds would be expected to temporarily move away during construction phases, but would be expected to return after completion of the proposed project. Therefore, foraging birds or other wildlife would not be impacted as a result of the proposed fishing pier construction.

Placement of signage at the proposed kiosk at the foot of the main accessway of the pier would alert beach goers and fisherman to the types of wildlife in the project vicinity. This signage would provide guidance to pier users in the event of hooking wildlife, including listed species, with additional information on catch-and-release practices designed to limit potential impacts to wildlife. These construction measures and public outreach materials would be a moderate, long-term benefit to the overall ecosystem.

Marine and Estuarine Fauna (Fish, Shell Beds, Benthic Organisms)

Affected Resources

There are a number of aquatic species found in the proposed project area. Fish species are abundant and include sea trout (*Salmo trutta*), red drum (*Sciaenops ocellatus*), sea robins (*Triglidae*), flounders (*Paralichthys*), porgys (*Sparidae*), and a host of other estuarine and juvenile marine fish (FDEP 2008). Benthic organisms are also abundant in these waters, and include bivalves, gastropods and other mollusks, anemones, amphipods, annelids, crustaceans, and echinoderms.

Environmental Consequences

The proposed project would likely result in short-term, minor impacts due to placement of the pilings where invertebrates or sessile organisms may have established themselves. Small fish that may migrate through the intertidal zone and submerged shallows are highly mobile and would be displaced to more suitable habitat within the project vicinity. In addition, sessile invertebrates occupying the submerged substrate and fish may be disturbed or displaced from the project area in the short term. However, these species are typically numerous in Gulf waters and typically recolonize quickly. No long-term impacts would be expected as a result of implementation of the proposed project.

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals

protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Gulf County, Florida13. Table 12-23 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-23. Potential Impacts to Species/Critical Habitats managed by DOI

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle[a], Kemp's ridley turtle; Leatherback turtle[a], Loggerhead turtle	Should the work be conducted during the turtles' nesting season from approximately May through October nesting turtles and their nests could be at risk through the disruption of nesting behaviors or destruction of nests and hatchlings (from machinery or lighting). Conservation measures below are expected to reduce these potential impacts to an insignificant and discountable level. Additionally, installation of pilings could result in harm or mortality during in water construction activities. Consultation will be initiated with NMFS to address this risk as this agency has jurisdiction to review impacts to sea turtles in the estuarine and marine environments.
Loggerhead proposed critical habitat	The project area overlaps with the currently proposed critical habitat area LOGG-N-32 encompassing nearshore reproductive habitat in Florida for Northwest Atlantic Distinct Population Segment of the loggerhead sea turtle as these habitats are terrestrial (i.e., beaches and shorelines) (78 FR 18000)Department of the Interior, 2013). PCE's for proposed loggerhead critical habitat include: 1) Suitable nesting beach habitat that: (a) has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides. 2) Sand that: (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and moisture content conducive to embryo development. 3) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. Temporary use of heavy equipment to construct walkovers and place pilings for the fishing pier could change sand and beach access characteristics important to nesting activity, nest construction, and embryo development in the immediate area of work. Lighting could alter the darkness of the beach and deter nesting. Conservation measures will ensure PCEs are not altered and that no adverse modification or destruction of proposed critical habitat occurs. Permanent placement of pilings could impede access to and from the beach; though the area of impact is anticipated to be small compared to the size of the beach and proposed critical habitat unit. While turtles may not have unimpeded access to the beach under the pier, access would

[13] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
	not be affected elsewhere on the beach due to the proposed project and the PCE within the unit would continue to support recovery of the species. Therefore, the Trustees do not consider this impact to be an adverse modification or destruction of proposed critical habitat.
West Indian manatee	The counties in the project area are not part of the 36 Florida counties that are identified as being counties where manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters. The main risk to manatees during implementation of this project would come from in-water construction which could result in harm or mortality from noise or physical contact. Conservatin measures below are designed to minimize potential impacts to an insignificant and discountable level.
Piping plover	The main risk to Piping plovers is from human disturbance while resting and foraging in habitats adjacent to work areas and the pier during visitor use. The proposed project could result in short term increases in noise which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the plovers to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) the Trustees would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable.
Red knot	The main risk to Red knots is from human disturbance while resting and foraging in habitats adjacent to work areas and the pier during visitor use. The proposed project could result in short term increases in noise which could startle individuals, though the Trustees would expect normal activity to resume within minutes or cause the red knots to move to a nearby area. Because other foraging/resting habitats are nearby (less than two miles) the Trustees would expect this temporary displacement to be within normal movement patterns and consider this effect insignificant and discountable.
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.
St. Andrew beach mouse	The main risk to the St. Andrew Beach Mouse is the collapse of burrows during construction which can result in abandonment of the burrow by the adults leading to potential harm or mortality and mortality of any young within the burrow, and increased risk of predation on adults. Because of the conservation measures listed below (including those for critical habitat), the Trustees believe impacts to beach mice will be reduced to an insignificant and discountable level.
Critical habitat for St. Andrew beach mouse	The project area overlaps with St. Andrew Beach Mouse Critical Habitat Unit #2, the Palm Point Unit. The total acreage of this unit is 162 acres. Primary Constituent Elements for the St. Andrews beach mouse habitat are: 1) A contiguous mosaic of primary, secondary scrub vegetation, and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites; 2) Primary and secondary dunes, generally dominated by sea oats that, despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators; 3) Scrub dunes, generally dominated by scrub oaks, that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane induced storm surge; 4) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas; and 5) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth and viability of all life stages. The proposed project is not expected to negatively impact PCE's but rather may benefit PCE's because the project area currently lacks a dune crossover in the project area. Instead, visitors and recreators currently access the beach habitat using uncontrolled informal trails from

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
	existing parking areas through the dunes to the beach. These trails could be limiting the amount of contiguous habitat, food resources, and burrow sites for the St. Andrew beach mouse. Constructing the crossover to link/access the pier should allow for unobstructed movements by mice; help prevent dune erosion as a result of the "fanning" of the current informal pathways, and thereby help reduce future adverse impacts of human activity to burrow sites and food resources. Based upon the implementation of the conservation measures below, no adverse modification of critical habitat areas for the St. Andrew beach mouse is anticipated. A natural light regime will be maintained as any lighting necessary on the walkover will be wildlife friendly. Based on the implementation of the conservation measures described below, no adverse modification or destruction of critical habitat areas for the St. Andrew beach mouse is anticipated.

In addition to the protected species managed by USFWS, the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata,* Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Additional information on a number of these species and associated critical habitats follows.

Sea Turtles and Marine Mammals

There are five species of endangered or threatened sea turtles that may occur or have potential to occur in the project area. These include green turtle, hawksbill turtle, Kemp's ridley turtle, leatherback turtle, and loggerhead turtle. Sea turtles forage in the waters of the coastal Florida panhandle region, and have potential to occur within the waters where in-water work is proposed. The project site contains suitable sea turtle nesting habitat along the sandy beach, and the area surrounding the project site is relatively open (undeveloped), which is preferred by nesting sea turtles to areas surrounded by urban development. It is proposed as critical habitat for the NWADPS of loggerhead.

The endangered West Indian manatee has the potential to occur in the project area waters. Manatees typically seek out shallow seagrass areas as preferred feeding habitat. Additionally, bottlenose dolphin (*Tursiops*) populations are known to migrate into bays, estuaries, and river mouths, and could be located in any of the proposed project areas (NMFS 2013b). Due to the project site proximity to the Gulf of Mexico, bottlenose dolphins are expected to occur in St. Joseph Bay.

Smalltooth Saw, Gulf Sturgeon, and Gulf Sturgeon Critical Habitat

Smalltooth sawfish (*Pristis pectinata*) do not typically utilize northern Gulf waters (NMFS 2013a). Gulf sturgeon (*Acipenser oxyrinchus*) are restricted to the Gulf of Mexico and its drainages, occurring primarily from the Mississippi River to the Suwannee River, in Louisiana, Mississippi, Alabama, and Florida (NMFS 2009). Adult fish reside in rivers 8 to 9 months each year and in estuarine or Gulf waters

during the 3 to 4 cooler months of each year (NMFS 2009). Important marine habitats include seagrass beds with sand and mud substrates (Mason and Clugston 1993).

Gulf sturgeon critical habitat was jointly designated by the NMFS and USFWS on April 18, 2003 (50 Code of Federal Regulations [C.F.R.] 226.214). The proposed project site is located within the Florida Nearshore Gulf of Mexico Critical Habitat Unit 11, which contains winter feeding and migration habitat for Gulf sturgeon. Critical habitat was designated based on seven primary constituent elements essential for its conservation, as defined in the 2003 *Federal Register* (See Ffigure 12-21 for critical habitat areas near the project site).

These seven elements are as follows:

1. Abundant food items such as detritus, aquatic insects, worms, and/or mollusks, within riverine habitats for larval and juvenile life stages; and abundant prey items such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, mollusks, and/or crustaceans within estuarine and marine habitats and substrates for subadult and adult life stages.
2. Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay.
3. Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, and generally but not always located in holes below normal riverbed depths believed necessary for minimizing energy expenditures during freshwater residency and possibly for osmoregulatory functions.
4. A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging.
5. Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics necessary for normal behavior, growth, and viability of all life stages.
6. Sediment quality, including texture and chemical characteristics necessary for normal behavior, growth, and viability of all life stages.
7. Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage).

St. Andrews Beach Mouse

Primary, secondary, and occasionally tertiary sand dunes with moderate cover of grasses and forbes, including sea oats, bitter panicum (*Panicum amarum*), Gulf bluestem, beach dropseed, and telegraph weed (*Heterotheca subaxillaris*) are considered preferred habitat of the St. Andrews beach mouse (*Peromyscus polionotus peninsularis*) (Hipes et al 2001). High, stable areas supporting sand live oak (*Q. geminata*) may be important following hurricanes that remove substantial dune habitat. The sand dune area within the project vicinity is designated critical habitat for the St. Andrews beach mouse. In addition, the maritime forest areas landward of the beach dunes provides suitable habitat for this

species as well. See Figure 12-21 for critical habitat near the project area for the St. Andrews beach mouse.

Piping Plover

The sandy beaches and shorelines adjacent to the project areas offer suitable foraging and resting habitat for the piping plover during the winter migratory season, and piping plover may forage in the shallow waters of the project area. Natural shorelines in the proposed project vicinity provide suitable winter migration resting habitat for the piping plover. Piping plover wintering habitat includes beaches, mudflats, and sandflats, as well as barrier island beaches and spoil islands (Haig 1992). On the Gulf Coast, preferred foraging areas are associated with wider beaches, mudflats, and small inlets (USFWS 2013a).

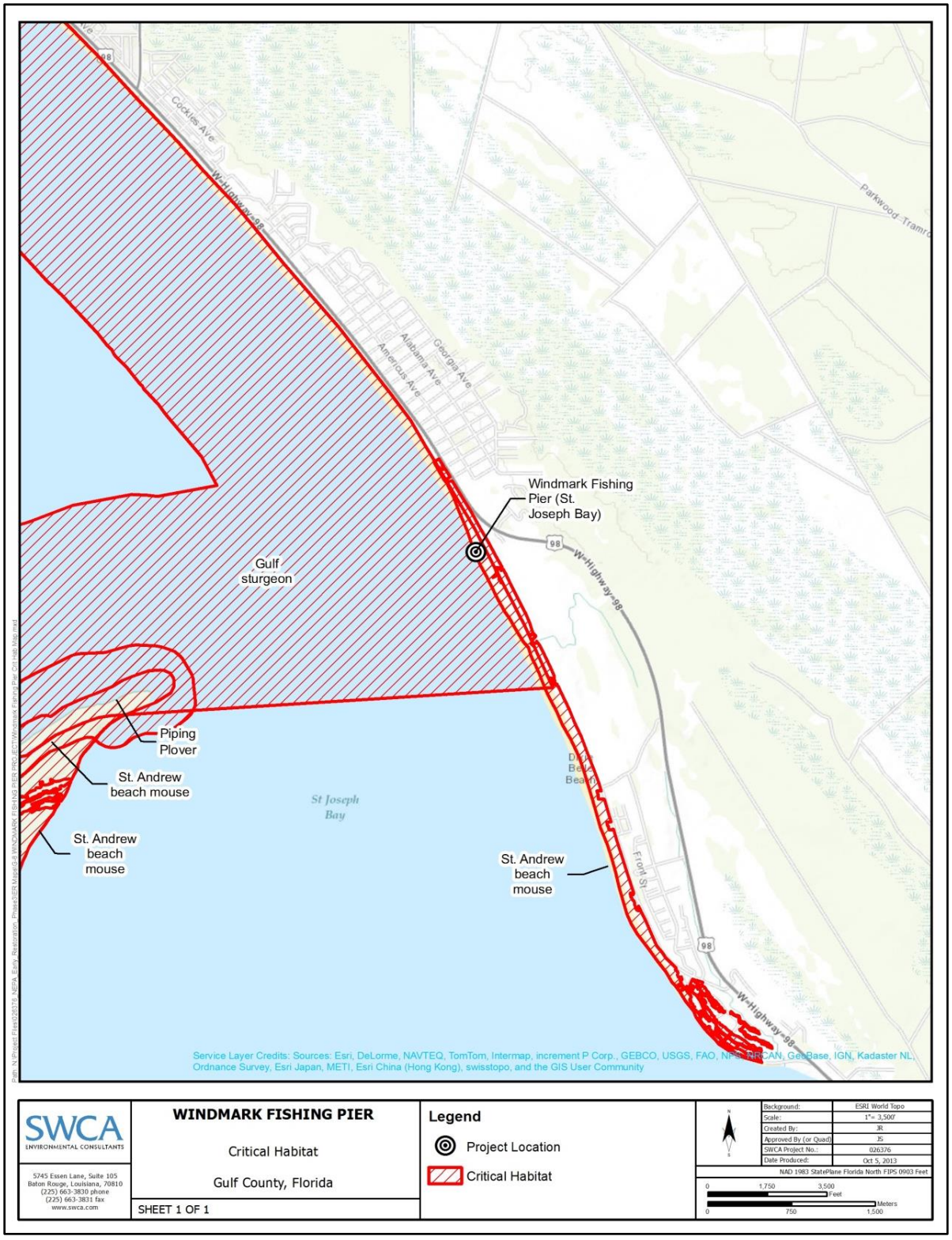

Figure 12-21. Gulf sturgeon critical habitat in the Windmark Fishing Pier project area, St. Joseph Bay.

Red Knot

The red knot (*Calidris canutus rufa*), a federal proposed species, uses Florida both for wintering habitat and migration stopover habitat for those migrating down to specific wintering locations in South America (Niles et al. 2008). Wintering and migrating red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks (Harrington 2001). Observations indicate that red knots also forage on oyster reef and exposed bay bottoms, and roost on high sand flats, reefs, and other sites protected from high tides (Niles et al. 2008). In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Threats to wintering and stopover habitat in Florida include shoreline development, hardening, dredging, deposition, and beach raking (Niles et al. 2008).

Essential Fish Habitat (EFH)

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column.

Table 12-24 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Gulf County Windmark Beach Park Fishing Pier site and St. Joseph's Bay.

Table 12-24. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH Category	Species
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark - Adult
	Atlantic Sharpnose Shark - Juvenile
	Atlantic Sharpnose Shark - Neonate
	Blacknose Shark - Adult
	Blacknose Shark - Juvenile
	Blacknose Shark - Neonate
	Blacktip Shark - Adult
	Blacktip Shark - Juvenile
	Blacktip Shark - Neonate
	Bonnethead Shark - Adult
	Bonnethead Shark - Juvenile
	Bonnethead Shark - Neonate
	Bull Shark - Juvenile
	Finetooth Shark – Adult and Juvenile
	Finetooth Shark - Neonate
	Great Hammerhead Shark - All
	Lemon Shark - Adult
	Lemon Shark - Juvenile

EFH Category	Species
	Lemon Shark - Neonate
	Nurse Shark - Adult
	Nurse Shark - Juvenile
	Scalloped Hammerhead Shark - Adult
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Spinner Shark - Adult
	Spinner Shark - Juvenile
	Spinner Shark - Neonate
	Tiger Shark - Juvenile
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper

EFH Category	Species
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

State-Listed Birds, MBTA, and BGEPA

There are numerous State of Florida–listed bird species with potential to occur in and around the Norriego Point Restoration Site. These include Arctic peregrine falcon (*Falco peregrinus tundrius*), least tern (*Sterna antillarum*), southeastern American kestrel (*Falco sparverius paulus*), Florida sandhill crane (*Grus canadensis pratensis*), American oystercatcher (*Haematopus palliates*), Southeastern/Cuban snowy plover (*Charadrius alexandrinus tenuirostris*), piping plover (discussed above), and wood stork (*Mycteria Americana*). All migratory bird species are protected under the MBTA. The nesting season in Florida is from February 15 to August 31.

The bald eagle was delisted by the USFWS and is not listed as threatened or endangered by the FWC. The bald eagle is, however, protected by state law pursuant to 68A-16, Fla. Admin. Code and by the U.S. government under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald eagles feed on fish and other readily available mammalian and avian species and are dependent on large, open expanses of water for foraging habitat. In Florida, conservation measures to protect active nest sites during nesting season must be considered to reduce potential disturbances of certain project activities. If bald eagles are found nesting within 660 feet of a proposed construction area, then activities would need to occur outside of nesting season or coordination with the USFWS would occur to determine if a permit is needed, and Florida's Bald Eagle Management Plan guidelines would be followed (FWC 2008).

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–712), respectively. Table 12-25 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-25. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds nest, forage, feed, and rest, and in the types of habitats consistent with some of the shoreline areas near the proposed project. As such, they may be impacted locally and temporarily by the project. Visitor use could also impact nesting birds.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes like those on the project site.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-26.

Table 12-26. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Shorebirds	Habitat in and around the project area is optimal for shorebird foraging and resting; while the Trustees expect shorebirds to move if disturbed, displacement could result in greater densities of shorebirds in other areas. If other areas are less optimal for foraging or resting inter and intra-species competition could occur. Therefore, care will be taken to minimize noise and physical disruptions near where foraging or resting birds are encountered. Nesting shorebird colonies are known in the Windmark area. During the design phase of the project coordination with the Panama City Ecological Services Field Office and FWC will occur so that the pier and the boardwalk can be sited and designed to avoid being placed in the nesting colony habitats. Nesting shorebirds could be affected by visitor use. If FWC or PCFO determines that visitor use may impact nesting shorebirds, additional BMPs (e.g., signage or roping a protective area that excludes visitors) will be provided. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Habitat in and around the project area is optimal for seabird foraging and resting; while the Trustees expect seabirds to move if disturbed, displacement could result in greater densities of birds in other areas. If other areas are less optimal for foraging or resting inter and intra-species competition could occur. Therefore, care will be taken to minimize noise and physical disruptions near where foraging or resting birds are encountered. All disturbances will be localized and temporary. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only. If project activities occur during seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting seabirds or rookeries and their recommendations will be implemented. Nesting seabirds could be affected by visitor use. If FWC or PCFO determines that visitor use may impact nesting seabirds, additional BMPs (e.g., signage or roping a protective area that excludes visitors) will be provided.

Environmental Consequences

Protected Species

The USFWS reviewed reviewed the proposed Windmark Beach Fishing Pier project in Gulf County, Florida for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On May 1, 2014 the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), St. Andrew beach mouse, piping plover, red knot (if listed), and West Indian manatee.

USFWS also concurred with the Trustees' determination the the proposed projects would not result in adverse modification or destruction of critical habitat for St. Andrew's beach mouse or loggerhead sea turtle (if designated) based upon the successful implementation of the identified conservation measures in Table 12-27.

Table 12-27. Conservation measures to be implemented in order to minimize impacts to species/critical habitats managed by DOI

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
Green turtle, Hawksbill turtle, Kemp's ridley turtle, Leatherback turtle, Loggerhead turtle	Should work be undertaken between May 1 and October 31 the following conservation measures will be followed: 1) All construction personnel will be notified of the potential presence of sea turtles and reminded of the criminal and civil penalties associated with harassing, harming, or killing sea turtles (all life stages). 2) The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys and will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day 3) If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel. 4) All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31[14], actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day. 5) If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes. 6) Avoid driving over the wrack line or areas of dense seaweed, as these habitats may contain sea turtle hatchings or baby birds that are difficult to see. 7) Sea turtle nests are regularly monitored and marked, thereby allowing visitors the opportunity to avoid impacting any nests. 8) In addition, any lighting will be required to be consistent with the guidance provided in the current edition of the FWC's Lighting Technical Manual.
Proposed loggerhead sea turtle critical habitat	To maintain PCE's for proposed loggerhead critical habitat, the following measures shall be implemented *(regardless of seasonality):* 1. All construction personnel will be notified of the presence of proposed critical habitat and reminded of the criminal and civil penalties associated with modifying critical habitat.

[14] Turtle *nesting* season is May 1 to August 31, while turtle *hatching* continues until October 31. Crawl protection is necessary during nesting season only. The remaining turtle BMPs should be implemented May 1 through October 31 and BMPs for proposed critical habitat should be implemented all year.

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
	2. The nearest, existing staging, access and egress areas, travel corridors, pathways, and roadways shall be used (including those provided by the State, local governments, land managers, trustee, or private property owner, with proper permissions). 3. No new staging areas, access or egress, or travel corridors shall be created. 4. If driving equipment or vehicles on the beach, enter at designated access, proceed directly to the hard-packed sand near or below the high tide line and stay below the tide line when driving long distances. 5. Avoid driving on the upper beach whenever possible, and never drive over any dunes or beach vegetation. 6. Use the smallest footprint possible to complete the proposed project. 7. If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes. 8. Any installed lighting on the pier or dune crossover will be turtle friendly (limits on lighting required for the pier as a navigation hazard may exist). To minimize risks to all sea turtle species in the aquatic environment, all construction conditions identified in the *Sea Turtle and Smalltooth Construction Conditions* (NOAA, 2006) would be implemented an adhered to.
West Indian manatee	All construction conditions identified in the *Standard Manatee Conditions for In-water Work* (USFWS, 2011) would be implemented an adhered to during project construction.
Piping plover and Red knot	If construction occurs within the period from August to May: Suveys for these species will be conducted regularly. Where either species congregates, an exclusion zone will be placed around the birds and no work will occur within 150 feet of the exclusion zone until the birds move on their own volition.
Gulf sturgeon	See note in above table about the review of potential Gulf sturgeon impacts being coordinated through NMFS instead of through the USFWS.
St. Andrew beach mouse	Conservation measures that will be implemented to avoid impacts to the St. Andrew Beach Mouse include: 1. All construction personnel will be notified of the potential presence of St. Andrew Beach Mice and reminded of the criminal and civil penalties associated with harassing, injuring, or killing St. Andrew Beach Mice. 2. To minimize impacts to St. Andrew Beach Mice in burrows, a qualified, permitted, biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided. 3. Construction noise will be kept to the minimum feasible. 4. Construction will occur during the day to minimize disturbance to nocturnal patterns. 5. Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice. 6. Prior to bringing any equipment (including personal gear, machinery, vehicles or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present, the equipment, vehicles, or personal gear shall be cleaned until they are free from mud, soil, seeds, and vegetation. This inspection will occur each time equipment, vehicles, and personal gear are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species. 7. Sites will be periodically inspected to identify and control new colonies/individuals of an invasive species not previously observed prior to construction. 8. Remove trash or anything that would attract nuisance wildlife to work areas daily. 9. Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes. 10. Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area. 11. Any lighting installed will be wildlife friendly to prevent changes to the lighting regime.

SPECIES	CONSERVATION MEASURES TO MINIMIZE IMPACTS
St. Andrew beach mouse critical habitat	Conservation measures that will be implemented to avoid impacts to the St. Andrew beach mouse critical habitat include: 1. The project will occur in very localized locations for very short periods of time, allowing the mosaic of primary, secondary scrub vegetation and dune structure to remain unchanged or increase after implementation. 2. If native dune plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize impacts to the vegetative composition of the area. The Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mouse. 3. If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided. 4. Project work will only occur during daylight hours, as such it will not alter the natural light regime of the area. Any lighting installed will be wildlife friendly to prevent changes to the lighting regime.
All	In addition to the species-specific measures identified above, the project Florida trustees agree to constructing the new dune walkovers associated with the in a manner consistent with the recent guidance for such work issued by the USFWS Panama City field office (USFWS, 2013). Further, to the extent possible (i.e., navigational lighting may have specific requirements), any lighting installed as part of the project will be wildlife friendly. Educational signage at the kiosks will remind visitors of sensitive species and habitats and how they can enjoy the area while protecting wildlife. Signage will discuss minimizing impacts from fishing gear entanglement to turtles, manatees, and birds.

Consultation of potential impacts on protected species managed by NMFS from this project was initiated on April 9, 2014. NMFS Protected Resources Division reviewed the Biological Assessment and determined that there was a potential for adverse impacts to threatened and endangered species. NFMS Protected Resources Division is currently preparing a Biological Opinion that evaluates the potential effects this project may have on gulf sturgeon, gulf sturgeon critical habitat and sea turtles.

The procedures contained within the ESA consultation for West Indian manatee[15] constitute appropriate and responsible steps to promote compliance with MMPA prohibitions on take by requiring the proposed activities to achieve a standard of No Effect or May Affect, Not Likely to Adversely Affect for manatees. As such, the Trustees do not anticipate any take, incidental or otherwise, under the MMPA for West Indian manatee due to implementation the proposed project. The Trustees are continuing to coordinate with NMFS Office of Protected Resources to evaluate the potential and magnitude of take or harassment of marine mammals under NMFS jurisdiction.

Essential Fish Habitat

Project installation activities would use BMPs to limit potentially adverse impacts to EFH associated with changes in water quality (e.g., turbidity) as well as noise and vibrations from the placement of pilings. In the short-term, machinery and equipment used during construction to deliver material and construct the pier would also generate noise. These noise levels would be kept to a minimum by BMPs such as

[15] Implementing of the Service's most recent version of the Standard Manatee Conditions for In-water Work (USFWS, 2011)

turning boats off during idling and working only during daylight hours. Noise generated from outboard motors and vessel maneuvering to transport and install the decking material and pilings would be minimal and temporary.

Adverse impacts to hydrology and water quality would be minor and temporary because support pilings would be driven into place and dredging would not be proposed. Short-term turbidity levels above background may be expected as a result of sediment disturbance during piling installation. No long-term adverse impacts to the hydrology of the proposed project area as a result of structure installation would be expected to be minor.

The proposed project would likely result in short-term, minor adverse impacts due to placement of the pilings where invertebrates or sessile organisms may have established themselves and with the loss of up to 15 square yards of bottom habitat to the pilings. Small fish that may migrate through the intertidal zone and submerged shallows are highly mobile and could move to more suitable habitat within the project vicinity. Sessile invertebrates occupying the submerged substrate and fish may be disturbed or displaced from the project area in the short term. However, these species are typically numerous in Gulf waters and recolonize quickly.

Finally,should the pre-construction survey identify areas of submerged aquatic vegetation where the pier is planned design adjustments (e.g., spacing of deck planking, pier height over water) would be incorporated to minimize impacts and continue to support SAV growth. During construction, adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas. As a result, no long-term adverse impacts would be expected to EFH or federally managed HMS as a result of implementation of the proposed project.

As a result, the Trustees concluded Impacts to EFH or the natural processes sustaining them may be detectable in the short run, but would be localized and would not measurably alter natural conditions in the longer run. Small changes to local population numbers, population structure, and other demographic factors would be unlikely to occur. There would be minimal absolute impacts in terms of the project footprint converting habitat relative to the Gulf of Mexico management area with the placing of pilings. Sufficient habitat would remain functional at both the local and range-wide scales to maintain the viability of the species. BMPs for construction and in-water work would be followed to minimize impacts and disturbance to species will be minor and brief. Therefore, the project is not likely to adversely affect EFH.

On April 17, 2014, NOAA concurred with the Trustees' conclusion that the project is not likely to adversely affect EFH and any disturbance to species will be minor and brief (Fay, 2014).

Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this

time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.59.5.4 Human Uses and Socioeconomics

12.59.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

The population of Gulf County is 15,863.Table 12-28 contains population/minority data for Gulf County and Florida (U.S. Bureau of the Census 2010).

Table 12-28. Population of Florida and Bay, Gulf, and Franklin Counties.

POPULATION	FLORIDA		GULF COUNTY	
2010 total population	18,688,787		15,863	
White alone	14,270,053	76.4%	12,384	78.1%
Black or African American alone	2,946,899	15.8%	2,962	18.7%
American Indian and Alaska Native alone	58,192	0.3%	63	0.4%
Asian alone	455,403	2.4%	46	0.3%
Native Hawaiian and Other Pacific Islander alone	11,005	0.1%	4	0.0%
Some other race alone	564,351	3.0%	119	0.8%
Two or more races	382,884	2.0%	285	1.8%
Median household income, 2007–2011	$47,827		$41,291	
Persons below poverty level, 2007–2011	14.7%		17.5%	

Environmental Consequences

There are no indications that the proposed fishing pier construction project would be contrary to the goals of Executive Order 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low-income populations of the surrounding community. Therefore, no adverse impacts to the socioeconomics of the regional population in Bay, Gulf, or Franklin Counties would be anticipated as a result of the proposed project.

The proposed fishing pier construction project would potentially provide indirect minor beneficial impacts to the local economy due to increased recreational activity in response to fishing and bird-watching opportunities provided by the restoration effort. Furthermore, it is estimated that approximately 15 construction positions would be generated by providing construction crews including marine contractors and heavy equipment and barge operators needed to construct the project.

12.59.5.4.2 Cultural Resources

Affected Resources

A review of the Florida Master Site Files indicates that there are four previously recorded archaeological sites located within 1 mile of the project area. However, none of these sites are located within the proposed project area. There are archaeological sites located in similar contexts in the region.3.3.2.2.

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.59.5.4.3 Infrastructure

Affected Resources

Port St. Joe, which is located on St. Joseph Bay, is one of three state-designated deep-water ports on North Florida's Gulf Coast. Access to the Gulf of Mexico is accomplished by an approximate 7-mile channel from the Port to the north end of the bay. The Port has two bulkheads and can accommodate ships with a 27-foot draft. Ships can directly access the Intracoastal Waterway from the Port. St. Joseph Peninsula State Park maintains a marina and boat ramp on the west side of St. Joseph Bay.

St. Joseph Bay is a relatively remote natural estuarine system with no services or infrastructure. The project waters are not located within the immediate vicinity of urban service centers. St. Joe Beach and Highland View are relatively small urbanized service centers located approximately 1 mile north and 3.5 miles south of Windmark Park, respectively. US-98 follows the shoreline of St. Joseph Bay and the Gulf of Mexico both north and south of Windmark Park.

Environmental Consequences

Port St. Joe is located approximately 5 miles south of the proposed project area. Since the Port would be outside the proposed project area, traffic from the Port would not affect the users of Windmark Park (project site), nor would construction activities pertaining to the project have any adverse impacts to the Port. Additionally, the proposed project would not be designed to attract boaters to moor to the fishing pier; therefore, the proposed project would not be expected to impose navigational hazards. In

addition, the proposed project would not be expected to impact transportation, utilities, or any or other infrastructure.

12.59.5.4.4 Land and Marine Management

Affected Resources

The proposed Windmark Fishing Pier project area would be located in and over sovereign submerged lands (SSL) owned and governed by the State of Florida; therefore, any projects undertaken on those lands must receive authorization from the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution as well as Section 253.77, F.S., and Chapter 258, F.S. An Environmental Resource Permit to construct the fishing pier and a Letter of Consent to use SSL lands must be attained from FDEP.

Environmental Consequences

Under the proposed project, no changes would occur to the current land use at the St. Joseph Bay and Windmark Park. Land use and management authority of Windmark Park would remain under the purview of Gulf County with cooperation from the FDEP, and no development at the project site would occur. The proposed project would be consistent with existing management and plans of Windmark Park. Ultimately, the proposed project would continue to provide public recreational fishing opportunities and maintain essential fisheries habitat and sanctuary for wildlife, including threatened and endangered species dependent on the beach and dune habitat available in the park for much of their life cycle. The proposed fishing pier construction would be conducted and maintained in accordance with state and federal permits for the project area in Gulf County. All permit conditions and requirements would be implemented. Therefore, potential adverse impacts to land and marine management resources would not be expected.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.59.5.4.5 Aesthetics and Visual Resources

Affected Resources

The land use of the proposed project site and vicinity would be either county park land, sparsely populated residential areas, or retail commercial. The general visual character of Windmark Park and immediate surrounding natural areas can be described as undeveloped or open space consisting of native upland terrestrial, wetland, and estuarine habitat separated from the Gulf of Mexico by barrier islands. Unobstructed views of open water characterizing the project area exist from the existing park and surrounding uplands at higher land elevations.

Environmental Consequences

Temporary impacts to visual resources would result throughout the duration of the proposed fishing pier construction activities. Construction equipment would be visible to visitors and recreational users at the project access points (i.e., beach) for approximately 2 years. These construction-related impacts to visual resources would be minor to moderate to park and beach users until construction is completed. Although the proposed fishing pier construction would be anticipated to result in relatively minor to moderate minor visual impacts to beach and park users, the recreational fishing opportunities to access available fisheries would be enhanced in the long term. Nonetheless, the proposed project would be expected to result in temporary minor to moderate impacts to current aesthetics or visual resources.

12.59.5.4.6 Tourism and Recreational Use

Affected Resources

According to the economic development organization Enterprise Florida (2013), the primary recreational opportunities in Gulf County are boating, fishing, swimming, diving, snorkeling, and golfing. St. Joseph Peninsula State Park is located west of the project area (opposite the shoreline of the bay), and the proposed project site is Windmark Park, a public facility owned and operated by Gulf County.

Environmental Consequences

The duration of the proposed fishing pier construction project would be approximately 2 years. Therefore, adverse impacts to recreational experience of the use of the beach would be minor and short term as a result of noise and visual disturbances. Public access to the beach would be maintained and there would be no beach restrictions other than those prohibiting human entry into the project construction area. While temporary inconveniences would result in short-term minor to moderate negative impacts to tourism, recreational use of the beach for fishing and swimming would remain available. Over the long term, the project would not result in adverse impacts to tourism and recreational use. Opportunities for recreational activity in the project waters would be enhanced as a result of improved fishing and bird-watching opportunities. Enhancement of the visual and solidarity experiences offered by the open water environment of St. Joseph Bay would provide additional beneficial community use. Over the long term, the project would result in minor beneficial impacts to tourism and recreational uses.

12.59.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

There are no known hazardous waste disposal facilities or active water discharge sites permitted in the proposed project vicinity.

Environmental Consequences

The project would have no impact on public health and safety in the area. The project would incorporate solid waste and recyclable material collection receptacles to enhance or encourage proper solid waste disposal practices to prevent pollution of the waters located in the project area.

12.59.6 Summary and Next Steps

The proposed Gulf County Recreation Project – Windmark Beach Fishing Pier Improvements project would construct a fishing pier at Windmark Beach in Gulf County. The proposed improvements include

constructing a fishing pier into the Gulf of Mexico. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational fishing opportunities by constructing a fishing pier. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.60 Bald Point State Park Recreation Areas: Project Description

12.60.1 Project Summary

The proposed Bald Point State Park Recreation Areas project would improve the existing visitor areas at Bald Point State Park in Franklin County. The project activity would involve constructing a visitor day-use area including picnic pavilions, a restroom with an aerobic treatment system and associated septic system drainfield, and an integrated system of boardwalks providing access through the area to a new floating dock, and a canoe/kayak launch area on Chaires Creek. The total estimated cost of the project is $470,800.

12.60.2 Background and Project Description

The Trustees propose to improve the visitor use areas at Bald Point State Park in Franklin County (See Figure 12-22 for general project location). The objective of the Bald Point State Park project is to enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas. The restoration work proposed includes construction of a visitor day-use area with picnic pavilions, a restroom with an aerobic treatment system and associated septic system drainfield, and an integrated system of baordwalks providing access through the area to a new floating dock, and a canoe/kayak launch area on Chaires Creek.

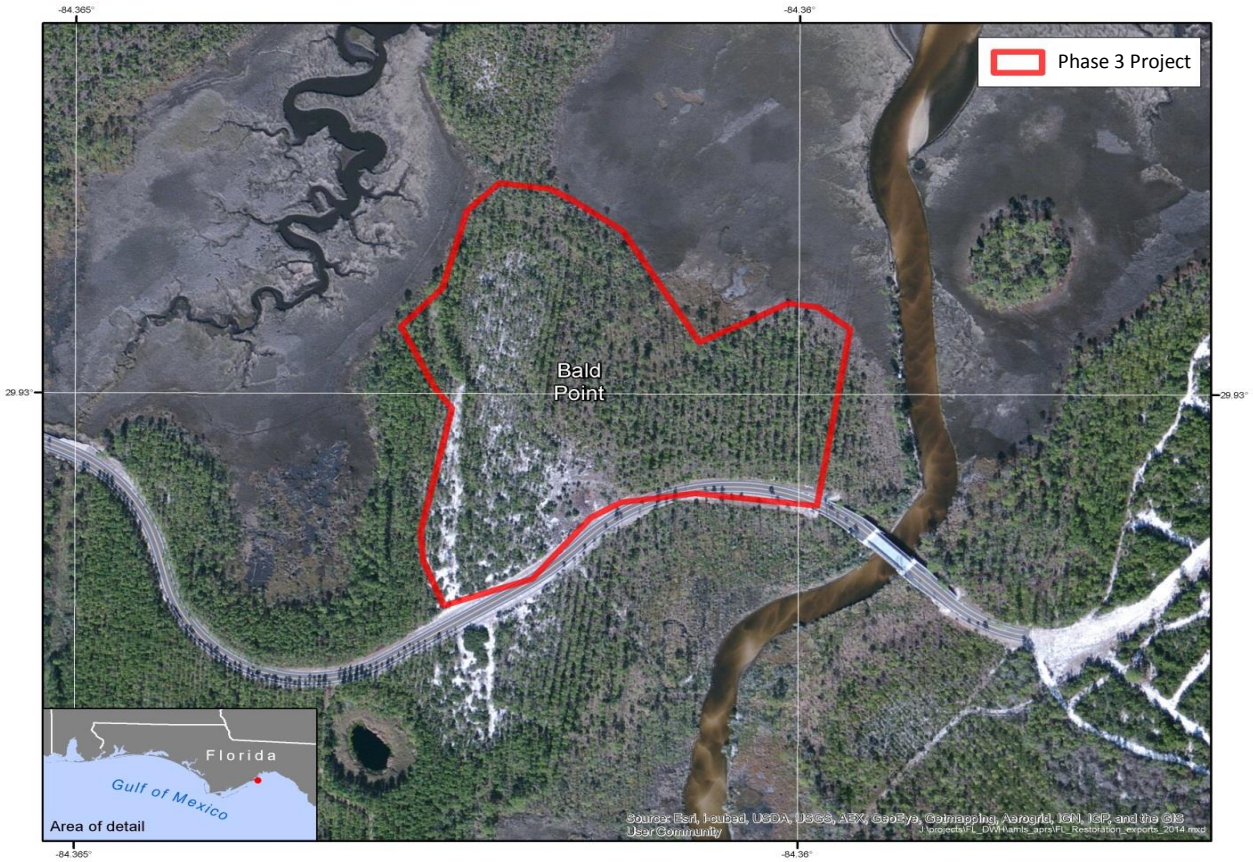

Figure 12-22. Location of Bald Point State Park Recreation Areas Project.

12.60.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Bald Point State Park Recreation Areas project is intended to enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas. The project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results and can be implemented with minimal delay. Florida agencies have successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.60, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.60 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the evaluation criteria for the Framework Agreement and OPA, the Bald Point State Park Recreation Areas project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area that was impacted by SCAT and response activities, including boom deployment.

12.60.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas. Performance monitoring will evaluate: 1) the construction of the vistor day-use are including picnic pavilions; 2) the construction of an integrated system of boardwalks; 2) the construction of a restroom with an aerobic treatment system and associated septic system drainfield; and 4) the construction of afloating dock and a canoe/kayak launch area. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced

and/or increased access is provided to the natural resources, which will be determined by observation that the visitor area is open and available.

Long term maintenance of the improved facilities will be completed by Bald Point State Park staff as part of their regular public facilities maintenance activities. Corrective actions necessary after completion and signoff of the project will also be undertaken by park staff. Funding for this post-construction maintenance is not included in the project cost estimate and will be assumed by Bald Point State Park.

During and following the post construction performance monitoring period, the State of Florida park staff will monitor the recreational use activity at the site. Park staff keeps track of visitation and usage at the park and will provide visitation numbers by the month. This use information is kept by the Florida Department of Environmental Protection.

12.60.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets are $941,600 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[16]

12.60.6 Costs

The total estimated cost to implement this project is $470,800. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[16] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.61 Bald Point State Park Recreation Areas: Environmental Review

The Florida Park Service (FPS) and the Florida Department of Environmental Protection (FDEP) propose to install improvements to the currently existing and utilized Bald Point State Park located in Franklin County, Florida. The park features waterfront access for swimming, sunbathing, fishing, canoeing, kayaking, and upland activities such as hiking and wildlife viewing.

The proposed project would provide improvements to visitor recreation areas within the park. The project activity would involve constructing a visitor day-use area including picnic pavilions, a restroom with an aerobic treatment system and associated septic system drainfield, and an integrated system of boardwalks providing access through the area to a new floating dock, and a canoe/kayak launch area on Chaires Creek.

12.61.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is under way. The Framework Agreement is intended to expedite the start of restoration in the Gulf of Mexico in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement, after public review of a draft, the Trustees released a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, NOAA issued a public notice in the Federal Register on behalf of the Trustees, announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP).

This park improvement in Franklin County was submitted as an Early Restoration project on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county panhandle area that deployed boom and was affected by the Spill.

12.61.2 Project Location

Bald Point State Park is located on the east end of St. James Island. The park can be accessed from County Road 370 via US Highway 98 (FDEP 2006) (Figure 12-23).

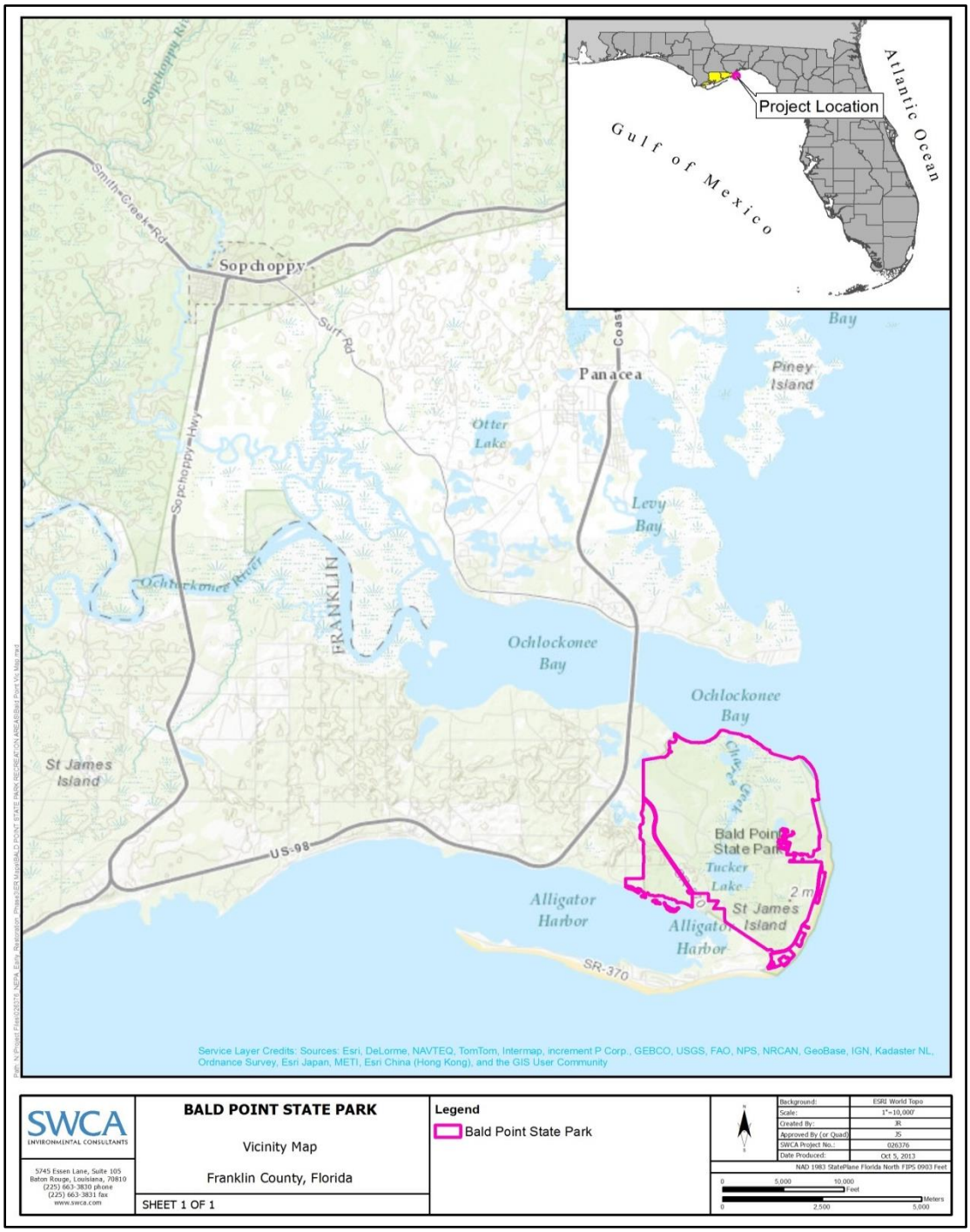

Figure 12-23. Bald Point State Park is located in Franklin County, Florida.

12.61.3 Construction and Installation

There are multiple project components associated with the park improvements that would be spread out within the defined project area, generally in upland areas. There would be multiple picnic pavilions installed and the locations of these installations would be determined once the final project plans are approved. Factors that would be taken into account during the design process include the avoidance of sensitive or protected habitat, sensitive or protected species, and cultural resources. The same holds true for the construction of a restroom and associated installation of the aerobic treatment system and drainage field, and the boardwalks.

The proposed canoe/kayak launch and floating dock would be constructed along Chaires Creek which is part of the estuarine tidal system through Chaires Creek. As part of this construction approximately 23 cubic yards of material would be excavated from Chaires Creek, which has been dredged previously, to connect the creek to Lake Tucker, and to facilitate installation of a pier (See Figure 12-23). This work has been approved in a US Army Corps of Engineers permit. Work would be completed almost entirely from the uplands and would, according to the current conceptual plan, require placing roughly 10-15 pilings in the river for the construction of the roughly 520 square foot dock and canoe/kayak launch. Piling placement/construction methods would be delineated in the final project design. All permit conditions and best management practices (BMPs) would be followed to ensure potential impacts to species and habitat are minimized. In-water project work is expected to take 12 to 18 months, including permitting and construction.

12.61.4 Operations and Maintenance

Long-term maintenance of the various park improvements would be performed by Bald Point State Park staff and the Florida Park Service. During the construction process, areas may be monitored and subjected to site visits as needed.

12.61.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.61.5.1 No action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.61.5.2 Physical Environment

12.61.5.2.1 Geology and Substrates

Affected Resources

The park is located in the Gulf Coast Lowlands physiographic unit. Specifically, the park is located within the Apalachicola Coastal Lowlands. The topography of the area is mostly flat, but there are some areas with moderate rolling dunes and high rolling hills (FDEP 2006). The entirety of Bald Point State Park is classified as beach ridge and dune (Qdb) deposits of the Pleistocene and Holocene eras.

There are 16 soil types that have been identified within the park. These are identified in Table 12-29. These areas are composed of Spodosols and Entisols. Briefly, Spodosols are soils that are composed of mixtures of organic matter and aluminum, with or without iron. Entisols are soils that have little or no evidence of soil horizons (i.e., they lack stratigraphy).

Table 12-29. Soils identified within Bald Point State Park (from FDEP 2006).

SOIL NAME	
Beaches	Mandarin fine sand
Direго and Bayvi soils, tidal	Duckston sand, occasionally flooded
Ridgewood sand, 0-5% slopes	Resota fine sand, 0-5% slopes
Corolla Sand, 0-5% slopes	Rutlege loamy fine sand, depressional
Dorovan-Pamlico complex, depressional	Rutlege fine sand
Hurricane sand	Scanton fine sand
Ortega fine sand, 0-5% slopes	Pickney-Pamlico complex, depressional
Kershaw sand, 5-12% slopes	Water
Leon sand	

Environmental Consequences

A range of hand tools and mechanized equipment would likely be used to complete construction and improvements to the state park. There are ground disturbing activities associated with each of the project components; these activities are local and specific to the particular project elements (such as the installation of a picnic pavilion or restroom). Furthermore, with the exception of the removal of soils from Chaires Creek (which would be permitted separately by USACE), the ground disturbance would be limited to the upper soils and would not likely exceed 3 to 5 feet in depth. Once construction is complete in a particular area, there would no longer be any disturbance to soils or geology in the area.

The effect to soils and geology would be minor and short term with no known adverse impacts. Disturbance to geologic features or soils would be detectable, but would be small and localized. There would be no changes to local geologic features or soil characteristics. Erosion and/or compaction would occur in localized areas.

12.61.5.2.2 Hydrology and Water Quality

Affected Resources

The waters surrounding the park area located on Bald Point.

Hydrology

The project area is situated on Bald Point, which is surrounded by water. These waters are designated as the Ochlockonee Bay, Apalachee Bay, Alligator Harbor, and the Gulf of Mexico. In addition to these waterbodies, there are several smaller creeks, drainages, and lakes within the park.

The park is underlain by the Floridian Aquifer; this aquifer is the source of most of the public water for Franklin County. In addition to the large, named waterbodies, there are numerous natural wetlands and drainages located in the park. These include estuarine tidal marsh, flatwoods lakes, depressional marsh, and marsh lakes. Chaires Creek is nearly 7 miles in length and is connected to an extensive estuarine tidal system. The largest lake in the park is Tucker Lake. Tucker Lake is drained by Chaires Creek. Chaires Creek was dredged in the past to connect it to Lake Tucker. This dredged area is narrow and shallow. Additional small-scale dredging was conducted to connect Little Tucker Lake to the western portion of Chaires Creek. Little Tucker Lake is very deep, nearly 60 feet, and has a sharp drop-off (FDEP 2006).

Water Quality

The waters surrounding Bald Point are designated as a Class II Shellfish Harvesting Area. They have excellent water quality and the waters of the bay are tested regularly. The Alligator Harbor Aquatic Preserve is designated as an Outstanding Florida Water; this area is located just southwest of the park.

Floodplains

The project is located in multiple flood zones. Portions of the park are located in the 100-year floodplain (Zones A and AE), the 500-year floodplain (Zone X), and high velocity flood zone (VE). The base flood elevations range from 10 to 17 feet above mean sea level (AMSL). Project plans are not yet finalized, so it is unclear which facilities would be constructed in the various flood zones.

Wetlands

Within Bald Point State Park there are multiple and various types of wetlands. The National Wetlands Inventory Mapper shows that there are areas of freshwater emergent wetlands, freshwater forested/shrub wetlands, estuarine and marine wetlands, and estuarine and marine deep waters present within the park (USFWS 2013).

Environmental Consequences

The project plans for the park improvements have not yet been finalized. However, careful consideration would be given to the design of the park improvements to have the least effect on waters and wetlands within the park.

The effect on hydrology would be measurable, but it would be small and localized. As the project plans are not yet finalized, all efforts would be made to design the project elements to have the least effect possible on the local hydrology.

Most of the project elements would be constructed in upland areas away from beaches and water bodies. The exception is the floating boat/kayak launch. The final project plans for the floating dock have not been completed; therefore the size of the pilings and method of installation have not yet been determined. During the construction of the floating dock, sandy soils would be disturbed as the piers/pilings were placed in the water. Additionally, there would be approximately 23 cubic yards of soils removed from the area where the dock would be constructed. A USACE permit for the construction of

the floating dock and associated soil removal is required; all conditions of this permit would be followed during the in-water construction period. After the floating dock is installed, there would be additional human activity in Chaires Creek. There would be a long-term, minor effect to water quality in the area as there would be some minor turbidity associated with the launching of human-powered kayaks or canoes. This would result in a detectable change to water quality, but the change would be expected to be small and localized. Impacts would quickly become undetectable. State water quality standards as required by the Clean Water Act would not be exceeded. The FDEP Wetland and Environmental Resource Field permits require the implementation of best management practices for turbidity and erosion.

All dredging activities would be done in compliance with FDEP and USACE permit conditions. These would typically include the following:

- Taking measures to prevent spoil material from entering waters of the state
- Monitoring turbidity at the dredge and spoil disposal sites
- Taking immediate corrective actions if a disposal site leaks or breaks
- After recontouring, replanting vegetation of the size, densities, and species as is present in the adjacent areas if the area dredged is vegetated

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the Corps and final authorization pursuant to CWA/RHA will be completed prior to project implementation.

The project area is classified as multiple floodplain zones; these include the A, AE, VE, and X zones. Impacts may result in a detectable change to natural and beneficial floodplain values, but the change would be expected to be small and localized. There would be no appreciable increased risk of flood loss, including impacts on human safety, health, and welfare.

There are multiple wetland areas throughout Bald Point State Park. The construction of the floating dock and associated boardwalk is a previously permitted project and all construction activities associated with the dock would comply with the appropriate federal laws. The remaining project elements (picnic pavilions, restroom, aerobic treatment system and drainfield) have not been permitted. During the construction of these project elements, the effect on wetlands would be measurable but small in terms of area and the nature of the impact. A small impact on the size, integrity, or connectivity would occur; however, wetland function would not be affected and natural restoration would occur if left undisturbed. Final design plans have not yet been completed for these project elements. Consideration would be given to the location of wetlands and the siting of project elements during the design process.

Construction activities would use best management practices and are anticipated to last 12 to 18 months from the time the permit process is initiated to the completion of construction. The calendar year timing would depend on the timing of funding availability and the contract award along with any permit constraints required as a result of listed species considerations. BMPS may include, but would not necessarily be limited to the following:

- Installation of floating turbidity barriers
- Installation of erosion control measures along the perimeter of all work areas
- Stabilization of all filled areas with sod, mats, barriers, or a combination
- Storing and fueling vehicles away from aquatic areas
- Re-vegetation of exposed soils when construction activities are complete

12.61.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The current air quality index in the project area is good in terms of both National Ambient Air Quality Standards and CO_2 emissions. Air quality within the Florida panhandle is in attainment with the National Ambient Air Quality Standards (http://www.epa.gov/airquality/urbanair/sipstatus/reports/fl_areabypoll.html).

Project plans have not been finalized for this project. As such, it is unclear what equipment would be used and the duration of use for that equipment. The following table provides greenhouse gas emissions estimates for a variety of construction and transportation equipment that may be used for the construction of park improvements. Each of these emissions is based on use of the heavy equipment over an 8-hour day (Table 12-30).

Table 12-30. Greenhouse gas emissions for various mechanized equipment.

EQUIPMENT DESCRIPTION[1]	TOTAL HOURS USED	CO_2 FACTOR: MT*/ 100HRS	CO_2 (MT)[2]	CH_4 FACTOR-MT/100HRS	CH_4 (MT)[3]	N_2O FACTOR-MT/100HRS	N_2O (MT)	TOTAL CO_2 (MT)
Dump Tucks / Flatbed Truck[4]	216	1.7	3.70	0.5	1.08	7.2	15.55	20.336
Concrete Trucks	24	1.7	0.40	0.5	0.12	7.2	1.72	2.248
Pickup Trucks[5]	2304	1.1	25.34	0.35	8.06	4.4	10.13	43.53
Bobcat (bare and w/ auger mount)	480	2.65	12.72	0.9	4.32	10.6	50.88	67.92
Trackhoe (w/ Bucket/ Thumb or Vibratory Attachments)	24	2.55	0.61	0.85	0.2	10.2	2.44	3.252
Dozer	24	2.25	0.54	0.65	0.16	1.08	0.26	0.96
Total	**4131**							**138.24**

*mt = metric tons

[1] Emissions assumptions for all equipment based on 8 hours of operation

[2] CO_2 emissions assumptions for diesel and gasoline engines based on EPA 2009

[3] CH_4 and NOx emissions assumptions and CO_2e calculations based on EPA 2011

[4] Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data was accessed through the California Environmental Quality Act Roadway Construction Emissions Model

[5] Emissions assumptions for an 8-cylinder, 6.2-liter gasoline engine Ford F150 pickup based on DOE 2013 and 18 gallon (half-tank) daily fuel consumption.

Environmental Consequences

Project implementation would require the use of some mechanized equipment that could temporarily lead to air pollution from equipment exhaust. Project plans have not yet been finalized for the various park improvements. However, available best management practices would be employed to prevent, mitigate, and control potential air pollutants during project implementation. Any minor pollution that does occur would be localized and short in duration. No air quality related permits would be required. Adverse impacts to air quality would be minor.

12.61.5.2.4 Noise

Affected Resources

Existing ambient noise levels within the park are generally low and predominantly result from daily recreational activities. Noise can be defined as unwanted sound and noise levels, and its impacts are interpreted in relationship to impacts on nearby visitors to the recreational areas and wildlife in the project vicinity. The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-31 shows typical noise levels for common sources expressed in dBA. Noise exposure depends on how much time an individual spends in different locations.

Table 12-31. Common noise levels.

NOISE SOURCE OR EFFECT	SOUND LEVEL (DBA)
Rock-and-roll band	110
Truck at 50 feet	80
Gas lawnmower at 100 feet	70
Normal conversation indoors	60
Moderate rainfall on foliage	50
Refrigerator	40
Bedroom at night	25

Source: Adapted from BPA 1986, 1996

Noise levels in the project areas vary depending on the season, time of day, number, types of noise sources, and distance from noise sources. Existing sources of noise in the project area are from vehicles, recreational boating, overhead aircraft, and ambient natural sounds such as wind, waves, and wildlife.

Environmental Consequences

Machinery and equipment used during construction would generate noise. This noise may disturb wildlife and humans using the area but would be kept to a minimum using best management practices. Once built, the proposed project would not cause long-term noise impacts. Adverse impacts from noise would be minor and short term.

12.61.5.3 Biological Environment

There are 13 distinct natural communities along with ruderal and developed areas located within the park (FDEP 2006). Each of these natural communities hosts a variety of animal and plant species.

Living Coastal and Marine Resources

Wildlife Habitat

Affected Resources

All of the project work with the exception of the floating boat dock would take place in a terrestrial environment. Terrestrial species known to reside in the park include, but are not limited to bald eagles, osprey, migrating falcons, deer, bear, raccoon, opossums, bobcats, foxes, other migrating birds, reptiles, and amphibians (FDEP n.d.).

Environmental Consequences

Most of the proposed project would be constructed within an upland environment. Only one project element would be constructed in the water, i.e., the floating boat dock. The proposed action has been evaluated for potential short- and long-term impacts to state and federally listed threatened and endangered species that can occur within and adjacent to the project areas, based on available suitable habitat and restoration goals.

A floating dock and associated boardwalk is planned that has in-water work associated with it. However, there is an existing USACE permit for this portion of the project; all conditions and mitigation measures contained in the permit would be followed for installation of the floating boat dock/kayak launch. No submerged aquatic vegetation, which is habitat for species such as manatees, sea turtles, or invertebrates, is present at the site and it was determined that fish and wildlife resources would most likely be only minimally impacted (FDEP 2006)

Vegetation

Affected Resources

Within Bald Point State Park, there are more than 360 varieties of plants (FDEP n.d.). A review of the General Map of Natural Vegetation (Davis 1967) shows that the park has both Sand Pine (*Pinus clausa*) scrub forests and forests of Long leaf pine (*Pinus palustris*) and Xerophhytic oaks. The park is described has having coastal marshes, pine flat woods, and oak thickets. A list of natural communities is found in Table 12-32. A list of rare plant species known or believed to occur in Franklin County can be found in Table 12-33.

There are four listed plant species that occur within the park as described in the park's management plan (FDEP 2006). These include Geoffrey's blazing star (Liatris provincialis), large-leaved jointweed (Polygonella macrophylla), spoon-leaf sundew (Drosera spatulata), and bent golden aster (Pityopsis flexuosa).

Table 12-32. Natural communities within Bald Point State Park (FEDP 2006).

NATURAL COMMUNITIES	ACRES
Beach Dune	57.59
Maritime Hammock	15.43
Mesic Flatwoods	1553.25
Scrub	163.05
Scrubby Flatwoods	935.54
Basin Marsh	245.48
Basin Swamp	319.5
Baygall	44.28
Depression Marsh	68.31
Wet Flatwoods	447.83
Flatwood/Prairie Lake	255.03
Marsh Lake	21.9
Estuarine Tidal Marsh	707.32
Ruderal	3.35
Developed	21.42

Geoffrey's blazing star is an endangered plant known to be present within the park (park brochure). This plant is a flowering aster that is limited to Wakulla and Franklin Counties; its habitat is limited to the areas between Lighthouse Point and Peninsular Point. The plant grows in scrub and sandhill environments and prefers open space. As the species is rare and limited to coastal dunes, habitat would be protected by limited disturbance in areas where the plant grows (NatureServe Explorer 2013).

Large-leaved jointweed is found in both Florida and Alabama. It is a slender perennial with a woody base and herbaceous stems. Its preferred habitat includes open, unshaded sand dunes and scrub ridges near the coast (NatureServe Explorer 2013b).

Spoon-leaf sundew is a carnivorous plant that grows in bogs and wet, sandy shorelines. This plant can survive long periods of submersion (USDA 2013).

Table 12-33. Rare plant species within Bald Point State Park (USFWS, 2013c).

RESOURCE CATEGORY	COMMON NAME	SCIENTIFIC NAME	USFWS STATUS	STATE STATUS	NATURAL COMMUNITIES
Plants	Bent golden aster	*Pityopsis flexuosa*		E	• Terrestrial: sandhill, upland pine forest, ruderal
Plants	Florida beargrass	*Nolina atopocarpa*		T	• Terrestrial: mesic flatwoods grassy areas
Plants	Florida skullcap	*Scutellaria floridana*	T	E	• Palustrine: seepage slope, wet flatwoods, grassy openings • Terrestrial: mesic flatwoods
Plants	Godfrey's (violet) butterwort	*Pinguicula ionantha*	T	E	• Palustrine: wet flatwoods, wet prairie, bog; in shallow water • Riverine: seepage slope; in shallow water. • Also, roadside ditches and similar habitat.
Plants	Geoffrey's blazing star	*Liatris provincialis*		E	• Terrestrial: sandhill, scrub, coastal grassland; disturbed areas
Plants	Gulf coast lupine	*Lupinus westianus*		T	• Terrestrial: beach dune, scrub, disturbed areas, roadsides, blowouts in dunes
Plants	Harper's beauty	*Harperocallis flava*	E	E	• Palustrine: wet prairie, seepage slope, roadsides, edges of titi swamps
Plants	Harper's grooved yellow flax	*Linum sulcatum var. harperi*		T	• Palustrine: wet flatwoods • Terrestrial: mesic flatwoods; in site-prepped areas
Plants	Harper's yellow-eyed grass	*Xyris scabrifolia*		T	• Palustrine: seepage slope, wet prairie, bogs
Plants	Hooded pitcher plant	*Sarracenia minor*		T	• Palustrine: wet flatwoods, wet prairie, seepage slope
Plants	Hummingbird flower	*Macranthera flammea*		E	• Palustrine: seepage slope, dome swamp edges, floodplain swamps • Riverine: seepage stream banks • Terrestrial: seepage slopes
Plants	Large-flowered grass of parnassus	*Parnassia grandifolia*		E	• Palustrine: dome swamp margins, seepage slope • Riverine: spring-run stream edge • Terrestrial: mesic flatwoods
Plants	Large-leaved jointweed	*Polygonella macrophylla*		T	• Terrestrial: scrub, sandpine/oak scrub ridges
Plants	Meadowbeauty	*Rhexia parviflora*		E	• Palustrine: dome swamp margin, seepage slope, depression marsh; on slopes; with hypericum
Plants	Panhandle spiderlily	*Hymenocallis henryae*		E	• Palustrine: dome swamp edges, wet prairie, wet flatwoods, baygall edges, swamp edges • Terrestrial: wet prairies and flatwoods
Plants	Parrot pitcher plant	*Sarracenia psittacina*		T	• Palustrine: wet flatwoods, wet prairie, seepage slope
Plants	Pinewoods aster	*Eurybia spinulosus*		E	• Palustrine: seepage slope • Terrestrial: sandhill, scrubby and mesic flatwoods
Plants	Scare-weed	*Baptisia simplicifolia*		T	• Terrestrial: mesic flatwoods, sand hill; on disturbed sites

RESOURCE CATEGORY	COMMON NAME	SCIENTIFIC NAME	USFWS STATUS	STATE STATUS	NATURAL COMMUNITIES
Plants	Southern milkweed	*Asclepias viridula*		T	• Palustrine: wet prairie, seepage slope edges • Riverine: seepage stream banks • Terrestrial: mesic flatwoods, drainage ditches
Plants	Southern red lily	*Lilium catesbaei*		T	• Palustrine: wet prairie, wet flatwoods, seepage slope • Terrestrial: mesic flatwoods, seepage slope; usually with grasses
Plants	Spoon-leaved sundew	*Drosera spatulata*		T	• Lacustrine: sinkhole lake edges Palustrine: seepage slope, wet flatwoods, depression marsh • Riverine: seepage stream banks, drainage ditches
Plants	Sweet shrub	*Calycanthus floridus*		E	• Terrestrial: upland hardwood forest, slope forest, bluffs • Palustrine: bottomland forest, stream banks, floodplains
Plants	Telephus spurge	*Euphorbia telephioides*	T	E	• Terrestrial: mesic flatwoods; disturbed wiregrass (Aristida stricta) areas, coastal scrub. • All known sites are within 4 miles of Gulf of Mexico.
Plants	Thick-leaved water-willow	*Justicia crassifolia*		E	• Palustrine: dome swamp, seepage slope • Terrestrial: mesic flatwoods
Plants	Tropical waxweed	*Cuphea aspera*			• Palustrine: wet prairie, seepage slope • Terrestrial: mesic flatwoods
Plants	West's flax	*Linum westii*		E	• Palustrine: dome swamp, depression marsh, wet flatwoods, wet prairie, pond margins
Plants	White birds-in-a nest	*Macbridea alba*	T	E	• Palustrine: seepage slope • Terrestrial: grassy mesic pine flatwoods, savannahs, roadsides, and similar habitat
Plants	White-top pitcher plant	*Sarracenia leucophylla*		E	• Palustrine: wet prairie, seepage slope, baygall edges, ditches
Plants	Wiregrass gentian	*Gentiana pennelliana*		E	• Palustrine: seepage slope, wet prairie, roadside ditches • Terrestrial: mesic flatwoods, planted slash pine
Plants	Yellow butterwort	*Pinguicula lutea*		T	• Palustrine: flatwoods, bogs
Plants	Yellow fringeless orchid	*Platanthera integra*		E	• Palustrine: wet prairie, seepage slope • Terrestrial: mesic flatwoods

E=endangered, T=threatened

Bent golden aster is found in various places within the Florida panhandle and is a fibrous, rooted perennial with a flexible stem. Its habitat is threatened due to the expansion of residential homes and pine plantations (NatureServe Explorer 2013c).

A review of Florida's Efficient Transportation Decision Making tool indicates that while submerged marine aquatic vegetation (corals, seagrasses) are present off the coastline, they are not present within the park (FDOT 2013d). There is potential for other submerged aquatic vegetation to be present in some of the lakes within the park, notably Tucker Lake, Little Tucker Lake, Sand Pond, and Western Mullet Pond.

Environmental Consequences

There are multiple, small construction events associated with this project. During the construction of the various picnic pavilions, the restrooms, the aerobic treatment system/drainfield, and the boardwalks vegetation would be disturbed in order to complete the construction.

Construction of the facilities would require the permanent removal of vegetation within the affected areas. The use of equipment and disturbance of soil and existing vegetation would also introduce a risk of noxious weed or invasive vegetation species introduction. Over all, impacts on native vegetation from the construction effort may be detectable, but would not alter natural conditions and would be limited to localized areas. Infrequent disturbance to individual plants could be expected, but without affecting local or range-wide population stability. Infrequent or insignificant one-time disturbance to locally suitable habitat could occur, but sufficient habitat would remain functional at both the local and regional scales to maintain the viability of the species.

Improvement to the park would likely bring in additional visitors. The additional human presence in the park may pose a long-term, minor effect to vegetation in the park. The more people who enter the park, the greater the likelihood that humans would trample, pick, or otherwise disturb plants. These events would occur in areas where new construction takes place. Impacts on native vegetation in the immediate vicinity of the new park improvements would be measureable but limited to local and adjacent areas. Occasional disturbance to individual plants could be expected. These disturbances could affect local populations negatively, but would not be expected to affect regional population stability. Some impacts might occur in key habitats, but sufficient local habitat would retain functionality to maintain the viability of the species both locally and throughout its range.

Due to the prevalence of both weeds and rare plants in the park, preconstruction vegetation surveys and pre/post-construction weed treatments would likely be required. Precautions would be taken to avoid colonies of Geoffrey's blazing star plants, which are listed as endangered in Florida. Project plans for the park improvements have not yet been completed. Therefore, the presence of threatened or endangered plants would be considered during the design phase of the project, including avoidance and minimization of impacts wherever feasible. Care would be also be taken to site any park improvements where disturbance to vegetation would be minimized.

Soil disturbance may encourage the encroachment of invasive or nuisance species. Those undeveloped areas disturbed during construction would be monitored and invasive species removed.

Marine and Estuarine Fauna (fish, shell beds, and benthic organisms)

Affected Resources

As most of the project wor would take place in the uplands and because the passage between Chaires Creek and Tucker Lake is a very narrow and shallow freshwater lake, it is not likely that marine species occur in the project area. However, the Gulf and Bay waters that surround Bald Point Park provide habitat for a multitude of marine species. Tucker Lake provides habitat to a multitude of common wildlife species and common bird species.

Environmental Consequences

A floating dock and associated boardwalk is planned for Chaires Creek. In-water work associated with this aspect would result in short-term impacts to common wildlife or fish present in the lake. These impacts would be short term and minor. However, there is an existing USACE permit for this portion of the project; all conditions and mitigation measures contained in the permit would be followed for installation of the floating boat dock/kayak launch.

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Affected Resources

The Trustees reviewed the species list for Franklin County, Florida where the project is located [17] and also considered the presence of bald eagles (*Haliaeetus leucocephalus*) and migratory birds. No habitat for listed, proposed, or candidate species managed by USFWS known from Franklin County, Florida is present in the action area and no listed, proposed, or candidate species are expected to be in the action area.

With respect to protected species managed by NMFS, the Bald Point project has been reviewed and approved under a State Programmatic General Permit (Permit IV-R1). Based on conversations with representatives from NOAA's PRD in SERO, the NOAA Restoration Center determined that while the Bald Point project falls within NMFS ESA jurisdiction but have current consultations with PRD SERO as part of the State Programmatic General Permit. These proposed projects have not changed in scope since the previous determinations were made, therefore the project will not require further ESA consultations with NMFS.

[17] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

Essential Fish Habitat

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Habitat Conservation Division (HCD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that with the exising State Programmatic General Permit (Permit IV-R1), the project did not require further EFH evaluation.

Environmental Consequences

Protected Species

Based a consideration of the available information, incuding a site visit on January 10, 2014, the Trustees made a no effect determination for all listed, proposed, and candidate species known from Franklin County, Florida. Similarly, with no terrestrial critical habitat designated or proposed in or near the action area; the Trustees concluded none will be adversely modified or destroyed. The USFWS concurred with this determination on March 10, 2014 for the species it manages.

State-listed Birds, MBTA, and BGEPA

No bald eagles are known to nest near the project area. However, migratory birds likely use the area for feeding, loafing, nesting, and resting. Because the project area is already used by the public for recreation short-term construction activity is anticipated to represent a marginal source of additional disturbance to species already in the area. However, precautions during construction will be used to protect any migratory birds that may be feeding, loafing, or resting in or near the project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence.

Vegetation will need to be removed to develop facilities associated with this project. Vegetation that could be used for nesting will be removed during the non-breeding season. If visitors are likely to approach migratory bird nesting areas through use of the project area after implementation (as determined by Park staff, Florida Fish and Wildlife Conservation Commission or the U.S. Fish and wildlife Service), educational signage will be posted at strategic locations. Signage will remind visitors of important migratory bird areas within the Park and any necessary precautions to avoid impacts to the species and their habitats. Signage will be coordinated with the Florida Fish and Wildlife Conservation Commission and the Panama City Ecological Services Field Office. The Trustees anticipate these measures should avoid any take of migratory birds. Therefore, no impacts to bald eagles or migratory birds are anticipated.

12.61.5.3.1 Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project area, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project site or could be introduced through the project have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.61.5.4 Human Uses and Socioeconomics

12.61.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

The population of Franklin County is approximately 11,686. The following table shows population data for Franklin County and Florida (Table 12-34). There are no human residents that live in the park.

Table 12-34. Census data for Franklin County and the State of Florida.

PEOPLE QUICKFACTS	FRANKLIN COUNTY	FLORIDA
Population, 2012 estimate	11,686	19,317,568
Population, 2010 (April 1) estimates base	11,549	18,802,690
Population, percent change, April 1, 2010 to July 1, 2012	1.2%	2.7%
Population, 2010	11,549	18,801,310
Persons under 5 years, percent, 2012	4.6%	5.5%
Persons under 18 years, percent, 2012	16.5%	20.7%
Persons 65 years and over, percent, 2012	18.9%	18.2%
Female persons, percent, 2012	42.4%	51.1%

Environmental Consequences

Improvements to Bald Point State Park would have a direct, beneficial effect for people that live near the park. Park improvements would encourage more people to visit the park and participate in outdoor activities, which might benefit the health and wellbeing of the local population. Improvements to the park would draw more visitors to the county. Long-term, indirect, moderate benefits would result from increasing recreational and fishing value of the area. Greater fishing success may increase the number of fishing trips in the area, which could generate ancillary purchases such as license fees, fuel, equipment, or other ancillary purchases.

Direct, short-term, moderate benefits through local job creation would result from construction activities. This project is not designed to create a benefit for any group or individual, but rather would provide benefits on a local and regional basis. Because the project occurs in an area that is not disproportionately minority or low income (see Table 12-34), there are no indications that the proposed

living shoreline project would be contrary to the goals of Executive Order 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low income populations of the surrounding community.

12.61.5.4.2 Cultural Resources

Affected Resources

A review of the Florida Master Site File's online information for the park area shows that there are numerous previously recorded archaeological sites that are located within or immediately adjacent to the park. There are prehistoric, historic-era, and multicomponent sites represented. Of note are two prehistoric shell middens that contain multiple human internments (8FR4 and 8FR5) that are located immediately adjacent to the park and may extend into the western portion of the park. Site 8FR5 (Yent Mound) is listed on the NRHP. In addition to the prehistoric resources, there are historic era (mid-1800s to late 1900s) fishing camps/siene yards to repair fishing nets. There is also evidence of twentieth-century turpentine activity, as pine trees in the park have been marked with the *cat face* scars that were placed to collect sap. Based on the presence of multiple, previously recorded archaeological sites within the park and extended use of the park and park areas by historic-era groups, it is likely that additional resources are present in similar contexts throughout the park (FDEP 2006).

Site 8FR900 (Camp Gordon Johnston) encompasses a large area along Alligator Harbor and the entire Bald Point State Park. Camp Gordon Johnston served as an amphibious training base for World War II soldiers from 1941 to 1946. As many as 30,000 troops were trained at the camp. This site is in the process of becoming listed on the NRHP as an archaeological district.

Environmental Consequences

The area currently occupied by Bald Point State Park has been used by humans for thousands of years. The area is culturally rich and has a diversity of previously recorded archaeological sites that range from prehistoric to modern era. As the entire park is part of the Camp Gordon Johnston Archaeological District (8FR900), any ground-disturbing activities that take place within the district (e.g., the park) would have the potential for moderate to severe adverse effect to historic properties listed on the NRHP (FDEP 2006).

The proposed project includes multiple construction events throughout the park that involve ground disturbing activities. Project plans for the park improvements have not been finalized and the exact location of the project facilities has not been designated. Once the locations of the various park improvements are selected, the area(s) would be subjected to a Phase I cultural resources survey. Based on the results of the survey, project plans would be altered to avoid any historic properties that would be adversely affected by the project work (ground disturbance and construction).

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.61.5.4.3 Infrastructure

Affected Resources

Currently, Bald Point State Park has limited infrastructure and is not serviced by utilities except at the entryway. The park can be accessed by County Road 370 (Alligator Road) and Bald Point. Currently the park has the following facilities:

North Point Beach Access

- Paved Parking
- Paved Cul-de-sac and Loading Zone
- Marsh Boardwalk and Overlook
- Small Picnic Shelters (2)
- Fishing Pier
- Canoe/Kayak Launch
- Interpretive Sign

Sunrise Beach Access

- Stabilized Parking
- Small Picnic Shelter
- Beach Boardwalk

Maritime Beach Access

- Paved Parking
- Restroom
- Self-service fee Collection Station
- Universally Accessible Walkway
- Small picnic shelters (2)
- Beach Boardwalk

Shop and Maintenance Area

- Staff Residence
- Pole Barns (2)
- Storage Buildings (4)
- Volunteer Host Sites

Environmental Consequences

Construction of facilities such as picnic pavilions, a restroom, a floating dock and boardwalks, and an aerobic treatment system/drainfield would have no adverse effect on utilities or existing infrastructure. The improvements would have a beneficial, long-term impact because they would enhance the visitor experience.

12.61.5.4.4 Land and Marine Management

Affected Resources

The park is managed by the FDRP, Florida Division of Recreation and Parks, under the 2006 Bald Point State Park Unit Management Plan. Under the plan, public outdoor recreation is the designated single use of the property. Major emphasis is placed on maximizing the recreational potential of the area; however, preservation of resources is also important (FDEP 2006).

To the east and south of the park, there are single-family residences and small subdivisions. There is a marina and additional homes along Alligator Harbor to the southwest of the park. The park is also part of a regional network of conservation lands.

The project area would be located in a coastal area that is regulated by the federal Coastal Zone Management Act (CZMA) of 1972 and the Florida Coastal Management Act of 1978.

Environmental Consequences

Although the action would require several permits for the short-term construction period, it would not require a variance, zoning change, or amendment to a land-use area or comprehensive management plan. The long-term impact of the project would be minor because it would not affect overall use and

management beyond the local park area. It would be consistent with current land use and would be consistent with and support the *Bald Point State Park Unit Management Plan*.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.61.5.4.5 Aesthetics and Visual Resources

Affected Resources

Existing aesthetics and visual resources from the project site are views of a minimally developed area. Views include those of a sandy shoreline, park vegetation such as trees, the bays, an access road, and park facilities.

Environmental Consequences

Short-term impacts would occur to visual resources during construction activities due to the presence of equipment and materials. These impacts would be minor because they would only be visible from a small portion of the park, would not dominate the viewshed, or would not detract from current visitor activities. Long-term changes to visual resources would occur from the addition of a boat ramp, restroom, and the expansion of boat trailer parking. These changes would be readily apparent but minor because they are consistent with other park facilities and would not attract attention, dominate the view, or detract from visitor experiences.

12.61.5.4.6 Tourism and Recreational Use

Affected Environment

Recreation at the park includes boating, swimming, fishing, canoeing/kayaking, hiking, camping, picnicking, wildlife viewing, and nature appreciation. There are hiking trails throughout the park that are used by both hikers and cyclists. The park has a series of interpretive programs focusing on birds, sea turtles, and natural communities (FDEP 2006). Brochures and kiosks with information are placed in strategic places in the park.

Environmental Consequences

During the construction period, the visitor's recreational experience would be negatively affected by noise and visual disturbances associated with the use of construction equipment. The impact would be short term and minor because it would only affect some recreationalists in the discreet areas where construction is taking place. Users would likely be aware of the construction, but changes in use would be slight. The construction process would also limit recreational activities near construction areas for a short time to protect public safety. These limitations would be a minor inconvenience to visitors. Over the long term, minor beneficial impacts to tourism and recreational use would be expected due to the enhancement of recreational opportunities associated with improved facilities and accessibility.

12.61.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Emergency Planning and Community Right-to-Know Act; and the Hazardous Materials Transportation Act. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites that have already been contaminated by releases of hazardous materials, wastes, or substances.

A review of the EPA's EnviroMapper revealed that there are no CERCLA sites on or immediately adjacent to the park. There is one RCRA site and one permit compliance system (PCS) site; both are located at the park's entrance.

Environmental Consequences

Project construction would require mechanical equipment that uses oil, lubricants, and fuels. The contractor would be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur, it would be contained and cleaned up promptly in accordance with all applicable regulations and the incident would be reported to appropriate agencies. As a result, no impacts associated with construction-related hazardous materials would be anticipated. The period of time during which a release could occur from construction activities would be short term and any release would be expected to be minor.

12.61.6 Summary and Next Steps

The proposed Bald Point State Park Recreation Areas project would improve the existing visitor areas at Bald Point State Park in Franklin County. The proposed improvements would include construction of picnic pavilions, boardwalks, restroom and aerobic treatment system and drainfield, and a boardwalk and floating dock for use as a canoe/kayak launch. The project is consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project would enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

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12.62 Enhancement of Franklin County Parks and Boat Ramps: Project Description A (Abercrombie Boat Ramp Project)

The Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project component is being dropped from the Final Phase III ERP/PEIS. Franklin County requested the Trustees to withdraw this project since the County was awarded funding from other sources to construct this project. Total funds allocated to the Abercrombrie Boat Ramp project component were $176,550.00.

A portion of the funds from the Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project component will be re-allocated to the Enhancement of Franklin County Parks and Boat Ramps: Waterfront Park Improvements project component. (see Section 12.62). During NEPA review of and additional visits to Waterfront Park project site, it was determined that several issues will need to be addressed in the final designs and permitting of this project that will increase the project costs. Increased cost to the project would include accessibility improvements for approximately $9,550.00 and stormwater management improvements for approximately $20,000.00. Total estimated costst to address the above issues will be $29,550.00. None of the proposed improvements would change the footprint of the originally proposed Waterfront Park project component.

A portion of the funds from the Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project component will be re-allocated to the Enhancement of Franklin County Parks and Boat Ramps: Indian Creek Boat Ramp project component. (see Section 12.63). After the public meetings, the Indian Creek Boat Ramp project site was revisited and it was determined that several issues need to be addressed in the final design and permitting of this project that will increase the project costs. Increase costs would include stormwater management improvements for approximately $30,000.00, alternative piling installation technique and accessibility issues for approximately $36,000.00 and environmental permitting issues for approximately $10,000.00. Total estimated costs to address the above issues will be $76,000.00. None of the proposed improvements would change the footprint of the originally proposed Indian Creek Boat Ramp project component.

A portion of the funds from the Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project will be re-allocated to the Enhancement of Franklin County Parks and Boat Ramps: St. George Island Fishing Pier project. (see Section 12.65). During the NEPA compliance review of the St. George Island Fishing Pier project, it has been determined that engineering and environmental concerns would warrant using a different pilings installation method at the site. It is now being proposed to revise the extraction and installation of pilings from traditional hammer type construction to press type construction. Increased costs to the project would be alternative piling installation technique for $71,000.00. The proposed change in technique would not change the footprint of the originally proposed St. George Island Fishing Pier project component.

The re-allocation of funds from the Abercrombrie Boat Ramp project component to the Waterfront Park project component, Indian Creek Boat Ramp project component, and the St. George Island Fishing Pier project component does not affect the BCR that was negotiated with BP for Enhancement of Franklin County Parks and Boat Ramps suite of projects.

12.63 Enhancement of Franklin County Parks and Boat Ramps: Project Description B (Waterfront Park)

12.63.1 Project Summary

The proposed Franklin County Waterfront Park project would improve the existing Waterfront Park in Apalachicola. The proposed improvements include enhancing existing parking and adjacent tie-up docks to enhance water access. In addition an existing onsite building would be enhanced to serve as an information center and dockmaster office. The total estimated cost of the project is $323,800.

12.63.2 Background and Project Description

The Trustees propose to improve and enhance the Apalachicola Waterfront Park in Franklin County (see **Error! Reference source not found.** for project location information). The objective of the proposed Franklin County Waterfront Park project is to enhance and/or increase recreational boating and fishing opportunities by improving the waterfront park. The restoration work proposed includes enhancing the existing parking and tie-up docks. In addition an existing onsite building would be enhanced to serve as an information center and dockmaster office. Finally, a kiosk describing fishing ethics, litter control, and the important resources surrounding the area (primarily commercial oyster bars and coastal marshes) would also be added.

12.63.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Franklin County Waterfront Park project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the waterfront park. The project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.66, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.66 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

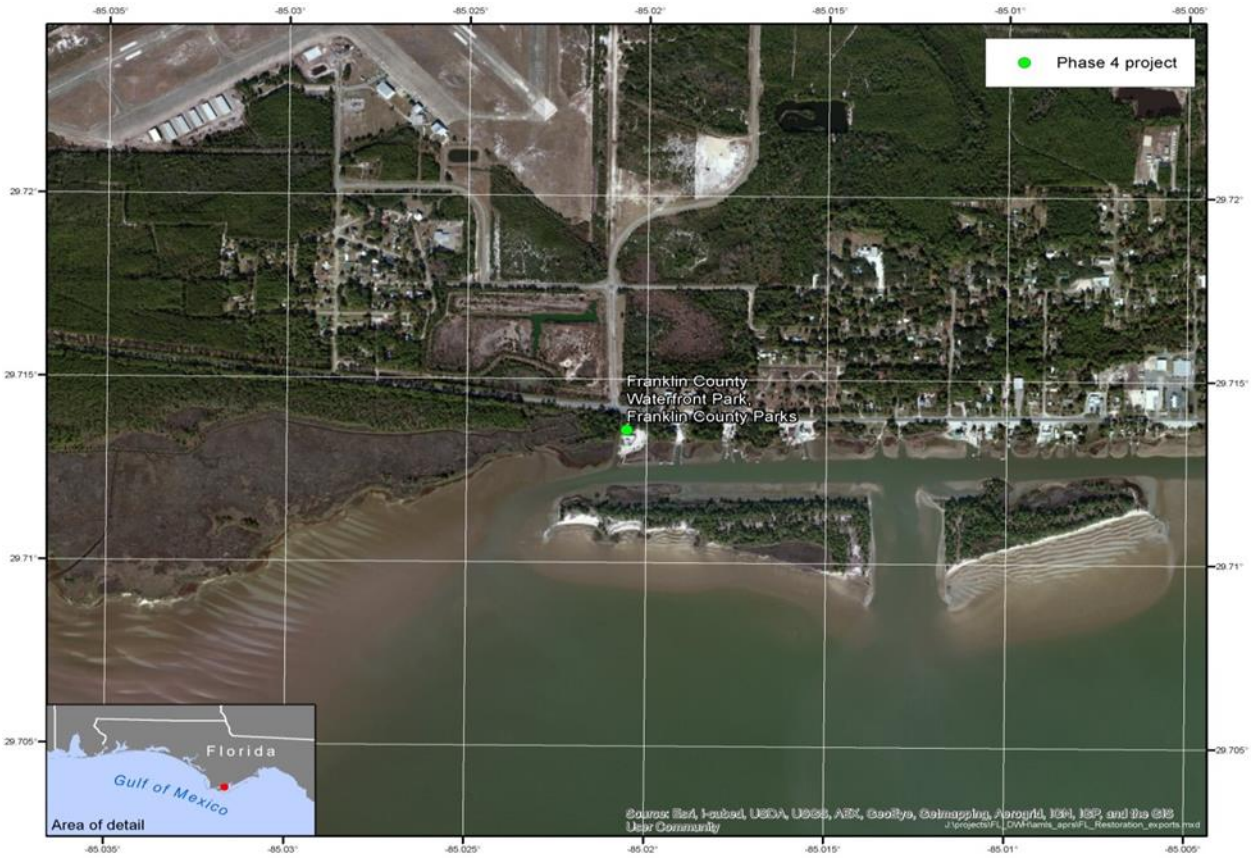

Figure 12-24. Location of enhancement of Franklin County parks and boat ramps – Waterfront Park facilities improvements.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the evaluation criteria for the Framework Agreement and OPA, the Enhancement of Franklin County Parks and Boat Ramps – Waterfront Park project also meets Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.63.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the waterfront park. Performance monitoring will evaluate: 1) the improvements to the existing parking area and tie-up docks; 2) the enhancement of an existing building onsite to serve as an information area and dockmaster office at Waterfront Park; and 3) the construction of the kiosk. Specific success criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the waterfront park is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin County will also be responsible for long-term maintenance of parking area, docks, and enhanced facility and will inspect them regularly. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Franklin County will monitor the recreational use activity at the site. Franklin County will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

The State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.63.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Enhancement of Franklin County Parks and Boat Ramps project, of which this is a component, are $3,542,770 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[18]

12.63.6 Costs

The total estimated cost to implement this project is $323,800. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[18] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.64 Enhancement of Franklin County Parks and Boat Ramps: Project Description C (Indian Creek Park)

12.64.1 Project Summary

The proposed Franklin County Indian Creek Park project would improve the existing Indian Creek Park boat launch facility in Franklin County. The proposed improvements include constructing restroom facilities, connecting them to an existing central wastewater facility nearby, and renovating the existing boat ramp, bulkhead, and parking area to enhance water access. The total estimated cost of the project is $429,100.

12.64.2 Background and Project Description

The Trustees propose to improve and enhance the existing Indian Creek Park Boat launch facility in Franklin County (see Figure 12-25 for project location information). The objective of the Franklin County Indian Creek Park project is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat launch facility. The restoration work proposed includes constructing restroom facilities, connecting them to an existing central wastewater facility nearby, and renovating an existing boat ramp and bulkhead that is currently deteriorating and revamping the parking area to enhance water access. Furthermore, a kiosk describing fishing ethics, litter control, and the important resources surrounding the area (primarily commercial oyster bars, submerged aquatic vegetation and marshes) would also be added.

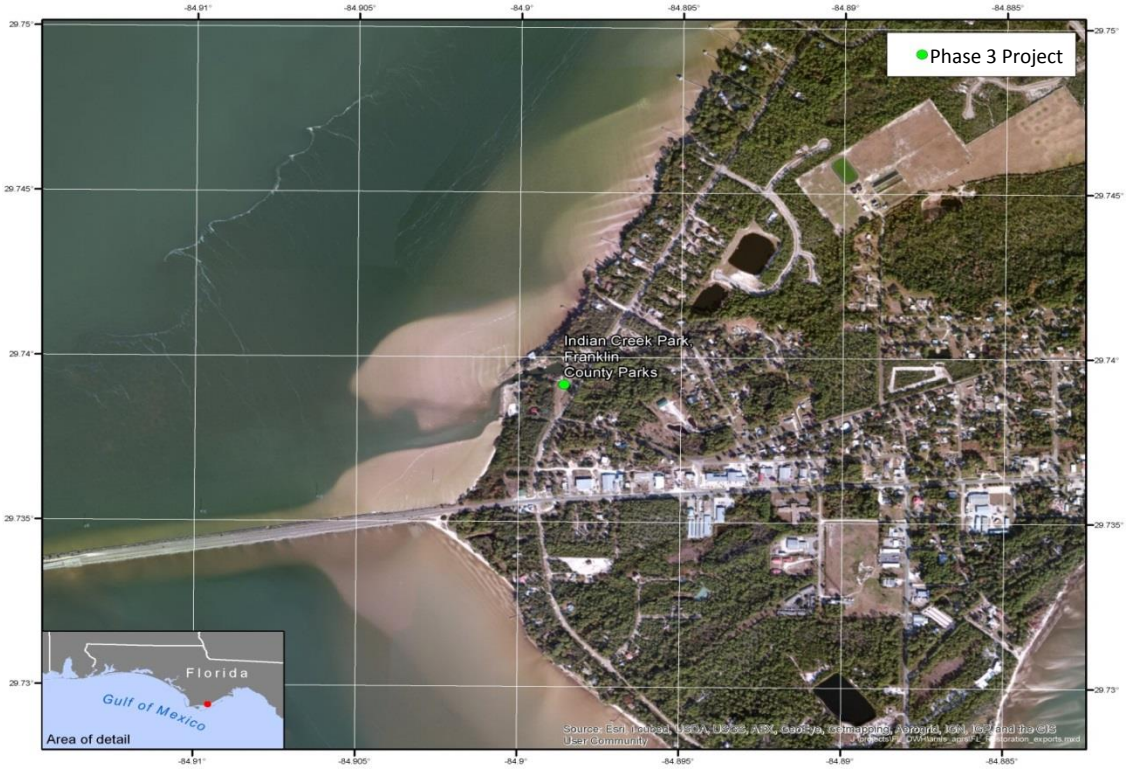

Figure 12-25. Location of enhancement of Franklin County parks and boat ramps – Indian Creek Park facilities improvements.

12.64.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Franklin County Indian Creek Park project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat launch facility. The project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects, and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.66, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.66 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the evaluation criteria for the Framework Agreement and OPA, the Enhancement of Franklin County Parks and Boat Ramps – Indian Creek Park Boat Ramp project also meets Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.64.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp. Performance monitoring will evaluate: 1) the construction of the new restrooms and connecting them to a nearby existing central wastewater facility; 2) the renovation of the existing boat ramp and bulkhead; 3) the renovation of the existing parking area to enhance access and use; and 4) the construction of the kiosk. Specific success criteria include: 1) the completion of the

construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin County will also be responsible for long-term maintenance of boat ramp and its restored bulkhead associated with the boat ramp and will inspect it regularly. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Franklin County will monitor the recreational use activity at the site. Franklin County staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.64.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Enhancement of Franklin County Parks and Boat Ramps project, of which this is a component, are $3,542,770 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[19]

12.64.6 Costs

The total estimated cost to implement this project is $429,100. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[19] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.65 Enhancement of Franklin County Parks and Boat Ramps: Project Description D (Eastpoint Fishing Pier Improvements)

12.65.1 Project Summary

The proposed Franklin County Eastpoint Fishing Pier Improvement project would add restroom facilities to the base of the existing public East Point Fishing Pier in Franklin County. The proposed improvements include not only constructing new restrooms, but a holding tank that would be pumped out regularly. In addition, signage will be installed/updated to provide users of the ramp with information on sensitive species and areas and appropriate actions to take with species interactions (e.g., what to do if a sea turtle or nesting migratory bird is encountered).The total estimated cost of the project is $294,250.

12.65.2 Background and Project Description

The Trustees propose to improve and enhance the Eastpoint Fishing Pier in Franklin County (see **Figure 12-26** for project location information). The objective of the Franklin County Eastpoint Fishing Pier Improvement project is to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The restoration work proposed includes constructing a restroom facility at the base of the public fishing pier. A Kiosk describing fishing ethics, litter control, and the important resources surrounding the pier (primarily commercial oyster bars) would also be added.

12.65.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Franklin County Eastpoint Fishing Pier Improvement project is intended to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.66, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.66 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not

inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

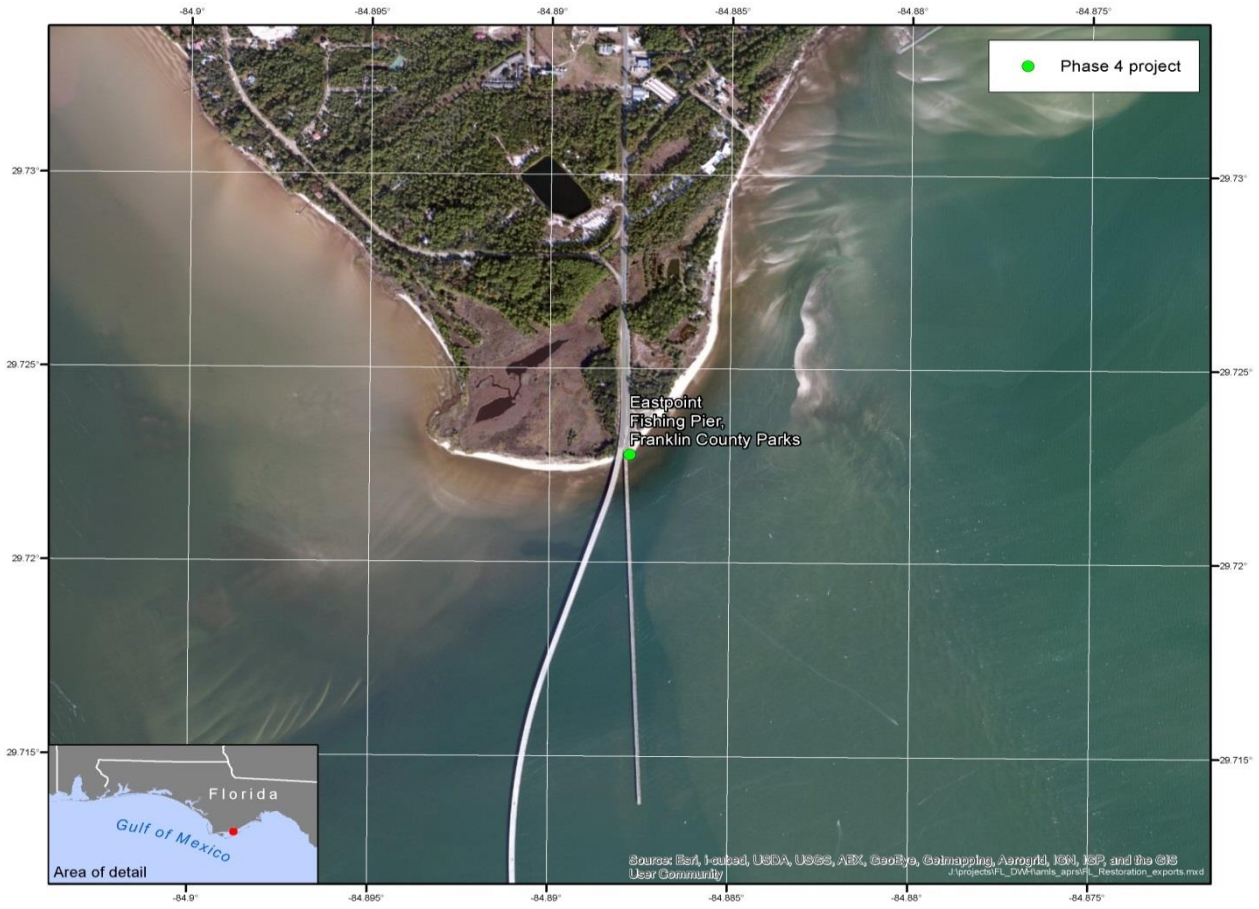

Figure 12-26. Location of enhancement of Franklin County parks and boat ramps – Eastpoint Fishing Pier improvements.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the evaluation criteria for the Framework Agreement and OPA, the Enhancement of Franklin County Parks and Boat Ramps – Eastpoint Fishing Pier Improvements project also meets Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.65.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by improving the public fishing pier. Performance monitoring will evaluate: 1) the construction of the new restrooms and

holding tank, and 2) construction of the kiosk. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the visitor area is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Regular pump-out of the holding tank will be contracted out and paid for by Franklin County. In addition in the event of a tropical storm or hurricane the facility's holding tank will be pumped out and the restrooms closed to public use to prevent discharge of sewage into the bay. Franklin County will also be responsible for contracting for garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Franklin County will monitor the recreational use activity at the site. Franklin County will visit the site twice a year to count the number of users at the pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.65.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Enhancement of Franklin County Parks and Boat Ramps project, of which this is a component, are $3,542,770 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[20]

12.65.6 Costs

The total estimated cost to implement this project is $294,250. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[20] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.66 Enhancement of Franklin County Parks and Boat Ramps: Project Description E (St. George Island Fishing Pier Improvements)

12.66.1 Project Summary

The proposed Franklin County St. George Island Fishing Pier Improvements project would enhance the existing public St. George Island public Fishing Pier in Franklin County. The proposed improvements include constructing restrooms and a holding tank that would be pumped out regularly since there is no central wastewater facility on the island. The proposed improvements also include renovating the existing bulkhead that leads up to the pier and protects the road to the pier. The total estimated cost of the project is $724,235.

12.66.2 Background and Project Description

The Trustees propose to enhance the St. George Island Fishing Pier in Franklin County (see Figure 12-27 for project location information). The objective of the Franklin County St. George Island Fishing Pier Improvements project is to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The restoration work proposed includes constructing a restroom facility and holding tank at the base of the public fishing pier and repairing the bulkhead to maintain access. A Kiosk describing fishing ethics, litter control, and the important resources surrounding the pier (primarily commercial oyster bars) would also be added.

12.66.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Franklin County St. George Island Fishing Pier Improvements project is intended to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. Agencies have successfully completed projects of similar scope throughout Florida over many years, including in earlier phases of the Deepwater Horizon Early Restoration. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.66, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.66 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed

project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the evaluation criteria for the Framework Agreement and OPA, the Enhancement of Franklin County Parks and Boat Ramps – St. George Island Fishing Pier Improvements project also meets Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

Figure 12-27. Location of Enhancement of Franklin County Parks and Boat Ramps – St. George Island Fishing Pier Improvements.

12.66.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. Theproject objective is to enhance and/or increase recreational fishing opportunities by improving the

existing fishing pier. Performance monitoring will evaluate: 1) the construction of the restrooms and holding tank; 2) the renovation of the bulkhead; and 3) the construction of the kiosk. Specific success criteria include: 1) the completion of the construction as designed and permitted, 2) and enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the fishing pier is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin County will also be responsible for long-term maintenance of the restored bulkhead and will inspect it regularly. Regular pump-out of the holding tank will be contracted out and paid for by Franklin County. In addition in the event of a tropical storm or hurricane the facility's holding tank will be pumped out and the restrooms closed to public use to prevent discharge of sewage into the bay. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the sire to record the number of users. Following the one year construction performance monitoring period, Franklin County will monitor the recreational use activity at the site. Franklin County staff will visit the site twice a year to count the number of users at the fishing pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.66.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Enhancement of Franklin County Parks and Boat Ramps project, of which this is a component, are $3,542,770 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[21]

12.66.6 Costs

The total estimated cost to implement this project is $724,235. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of publication of the Final Phase III ERP/PEIS. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[21] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.67 Enhancement of Franklin County Parks and Boat Ramps: Environmental Review

The project consists of construction activities at five existing recreation areas within Franklin County, Florida, that provide water-based recreation opportunities. The four parks where the proposed improvements would occur include:

- Franklin County Waterfront Park
- Indian Creek Park
- Eastpoint Fishing Pier
- St. George Island Fishing Pier

12.67.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This boat ramp project was submitted as an Early Restoration project on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The proposed project is part of that larger effort to address the impacts of the DWH oil spill and its impacts on damaged natural resources and human uses of those resources within the Gulf of Mexico. The project consists of construction activities at four existing recreation areas within Franklin County, Florida, that provide water-based recreation opportunities. The four parks and the proposed improvements include:

- Waterfront Park— Improve the existing Waterfront Park in Apalachicola. The proposed improvements include enhancing existing parking and adjacent tie-up docks to enhance water

access. In addition an existing onsite building would be enhanced to serve as an information center and dockmaster office. The total estimated cost of the project is $323,800.

- Indian Creek Park— Improve the existing Indian Creek Park boat launch facility in Franklin County. The proposed improvements include constructing restroom facilities, connecting them to an existing central wastewater facility nearby, and renovating the existing boat ramp, bulkhead, and parking area to enhance water access. The total estimated cost of the project is $429,100.
- Eastpoint Fishing Pier— Add restroom facilities to the base of the existing public Eastpoint Fishing Pier in Franklin County. The proposed improvements include not only constructing new restrooms, but a holding tank that would be pumped out regularly. The total estimated cost of the project is $294,250.
- St. George Island Fishing Pier— Enhance the existing public St. George Island public Fishing Pier in Franklin County. The proposed improvements include constructing new restrooms and a holding tank that would be pumped out regularly since there is no central wastewater facility on the island. The proposed improvements also include renovating the existing bulkhead that leads up to the pier and protects the road to the pier. The total estimated cost of the project is $724,235.

The proposed projects would enhance recreation access (through specific site improvements); improve parking at existing sites; improve visitor comfort with the addition of new restrooms, enhance visitor amenities; and protect existing public recreation infrastructure into the future.

12.67.2 Project Location

The four proposed project sites are located in Franklin County, Florida, and provide water based recreational access and opportunities to Apalachicola Bay, St. George Sound, and the Gulf of Mexico. The sites include: Franklin County Waterfront Park, Indian Creek Park, Eastpoint Fishing Pier, and St. George Island Fishing Pier. The four Franklin County sites are all located within the Apalachicola National Estuarine Research Reserve (ANERR). The National Estuarine Research Reserve System is administered by the National Oceanic and Atmospheric Administration (NOAA) and the coastal states. The ANERR was designated in 1979 because of its pristine nature and valued habitat for commercially and recreationally important species. Public lands within the ANERR include the St. Vincent Island National Wildlife Refuge, St. George Island State Park, Apalachicola River Wildlife and Environmental Area, Apalachicola River Water Management Area, and Little St. George Island. The Florida Department of Environmental Protection (FDEP) Office of Coastal and Aquatic Managed Areas administers the ANERR. Figure 12-30 shows the ANERR boundary and the locations of the four proposed project sites.

12.67.3 Construction and Installation

The construction for each project elements is described separately in this section.

Watefront Park

The proposed improvements this project would provide include enhancing existing parking and adjacent tie-up docks to enhance water access. In addition, an existing onsite building would be enhanced to serve as an information center and dockmaster office. A kiosk describing fishing ethics, litter control,

coastal marshes, migratory bird and listed species protection[22]at St. Vincent's National Wildlife Refuge and St. George Island) among other topics would also be added as part of this project.

Final plans for the project have not been developed for theinstallation of floating docks to provide a transition zone to the current docks. Constructing this floating dock will require the placement of up to 12 pilings to anchor the floating dock and link it to the existing dock. The piles would be emplaced by some combination of water jetting and mechanical auguring. The pilings themselves would be up to 8" in diameter and would be made of wood. Figure 12-28 provides a more detailed view of the site. In this figure the floating dock would be attached to the "L" shaped dock located in the Western part of the indicated project area.

As part of this engineering and site assessment for the dock placement, a survey of submerged aquatic vegetation (SAV) in the area would be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) would be implemented. Among other elements this would require pilings for the dock expansion be placed a minimum of 10 feet apart.

[22] Information for migratory bird and listed species protection will be developed in cooperation with FWC and the USFWS Panama City Field Office.

Figure 12-28. Detailed view of the Waterfront Park project site.

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) would be implemented and adhered to along with the conditions identified in the *Standard Manatee Conditions for In-water Work* (USFWS, 2011) would be followed. Significant aspects of these provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

BMPs for erosion control would also be implemented and maintained at all times during upland construction to prevent siltation and turbid discharges into surface waters. Methods could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.

Indian Creek Park

The proposed Franklin County Indian Creek Park project would improve the existing Indian Creek Park boat launch facility at North Bayshore Drive in Franklin County. The proposed improvements include constructing restroom facilities constructed away from the shoreline in a developed area of the park and

to ease access connecting them to an existing central wastewater facility nearby, installing an informational kiosk, and renovating the existing boat ramp, bulkhead, and parking area to enhance water access.

While final plans have not been developed for this project, the construction work associated with repairs/replacement of a boat ramp can be summarized in terms of executing a number of specific tasks and subtasks including:

Task 1. Site Preparation

a. Prior to beginning any waterward work at the boat ramp site the project area needs to be surveyed and marked. Turbidity curtains are then installed to encapsulate the work area and other erosion control methods are put in place on the landward side of the project (e.g., placement of hay bales) to prevent erosion into the water from equipment movement and any work being performed on the upland areas.

Task 2. Ramp Repairs/Construction

a. The area for the ramp is surveyed in and marked by stake or pole (typically small diameter 2" or less PVC).
b. A coffer or bladder dam is installed and the water within the dam, between the waterward extent of the ramp and the land, is pumped out to upland storage ponds or run through a filter system to remove any sediment in the water before returning it to the receiving waterbody. The work area is kept dry by use of dewater pumps (ground water to be pumped is first sampled and tested for water quality) and disposed of in the same manner as the pumped surface water. This dewatering operation is run continuously throughout the construction of the ramps. Once the ramps are completed the dewatering pumps are shut down and the dams are removed.
c. Construction of the ramps begins once the area is sufficiently dry to remove unsuitable soils, if necessary, and replaced with suitable soil. This soil is then compacted to specification. Then the base material for the ramp is placed, usually a rock material. After placement and compaction of the base the ramp is formed, reinforcing steel placed and then the concrete poured and finished. Once curing of the concrete is complete the forms are removed and the coffer or bladder dams are removed.

Task 3. Monitoring

a. Every day, before the start of construction activities, the turbidity screen is checked and repaired if necessary.
b. The foreman or other designated individual checks the area inside the screen and the screen itself to see if any protected species (manatees, dolphins, small tooth sawfish etc.) have gotten trapped within the work area or in the screen. If so then appropriate (FWC) personnel are notified to request removal. No work is begun until the animal, fish or bird is removed.
c. During the work day the work area and area adjacent to the work are is monitored to make sure protected species have not ventured into the area. If so then work is stopped until the animal moves out of the area.
d. At the end of the day the area is checked for debris, sediment and possible spillage and these are properly removed and disposed of before shutting down the site.

e. If a storm is anticipated that might damage the turbidity screen it is removed and stored until the storm event has passed and seas have resided.

When work being constructed in water requires it to be performed in a dry environment a cofferdam or bladder dam is installed. These are often employed when building boat ramps where the forming, pouring, finishing and curing of the concrete ramps is required to be constructed in a dry area. More often than not, along the coastal areas where tides and wave action occurs, a cofferdam is utilized. A coffer dam is most often constructed of welded steel sheet piles, whales and cross bracing. The sheet piles are usually jetted in to a set depth and then driven in the last 3-5 feet to provide a secure fitting. The sheet piling will usually encompass the entire work area being installed in a "U" shape with the ends of the system connected into the uplands. The cofferdam then provides a barrier to keep out water during the work of placing the ramp.

Once the sheet piles are in place the surface water is pumped out to either upland constructed holding ponds or more often through a filtration system in order to remove any sediment which may be disturbed during the pumping operation. To keep the work area dry throughout construction of the ramp a dewatering system will also be installed by the contractor to lower and keep water levels below any depth from which soils or sediment may need to be removed in order to provide a firm foundation for the ramp. Prior to starting the dewatering system, water quality tests will be performed to insure the suitability of discharging groundwater back into the receiving water body. If the groundwater is found to not meet water quality criteria for the receiving water body then further treatment may be required before it is released. If the ground water meets water quality standards then it will be filtered through the same system as the surface water. The dewatering system will be run 24 hours a day continously throughout the construction period required to install the water ward facilities, i.e. ramp. Once all work is completed the dewatering system is shut down and removed and then the sheet piles are removed as well. All coffer dam installation and removal tasks are performed by a qualified contractor thoroughly experienced in this type of work.

A bladder dam follows basically a similar approach but is less intensive where the bottom is anchored in the sediment and then the dam creating the watertight barrier is created by inflating a durable bladder wall vs installing sheet piles. The less invasive nature of the bladder dam makes it more appealing for use in situations, like the Indian Creek Boat Ramp project where there is a limited amount of in-water work in a focused area for a limited duration of time.

Similarly, plans for the bulkhead work have not been finalized but are likely to involve some combination of removing parts of the existing, failing, concrete structure and then rebuilding the bulkhead using isolated concrete forms to meet the final design specifications. The bulkhead work in question is effectively the concrete retaining wall holding back the soil along the ramp as it progresses from grade to the waterline. This bulkhead/wall is failing and needs to be replaced. Most of this work is above the waterline and the remaining portion would be incorporated within the area enclosed by the bladder dam described above. All removed material would be appropriately removed and disposed of along with the ramp materials.

Neither the boat ramp or bulkhead repairs would involve the placing of pilings and the in-water portion of this work will be completed within three months.

Critically, during any in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) would be implemented and adhered to. These provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition. This work would not expand the developed footprint of the finished ramp and bulkhead.

Best management practices (BMPs) for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. This may include the use of filter fences (staked or floating), sedimentation screens, erosion control blankets or other appropriate erosion and turbidity control measures.

Eastpoint Fishing Pier

This project would add restroom facilities to the base of the existing Eastpoint public fishing pier with a holding tank that would be pumped out regularly. See Figure 12-29 for the project location. All work for this project would take place in developed upland areas. No in-water work would be required.

In addition, as part of this project, signage will be installed/updated to provide users of the ramp with information on sensitive species and areas and appropriate actions to take with species interactions (e.g., what to do if a sea turtle or nesting migratory bird is encountered).

Figure 12-29. Location of the Eastpoint Fishing Pier Project

St. George Island Fishing Pier

The proposed Franklin County St. George Island Fishing Pier Improvements project would include constructing new restrooms and a holding tank that would be pumped out regularly since there is no central wastewater treatment facility on the island. The proposed improvements also include completing renovation work to the existing bulkhead that leads up to the pier and protects the road to the pier that was begun under an earlier separate funding stream. In addition, an informational kiosk would be constructed. This kiosk would be used to distribute information describing fishing ethics and litter control and provide contacts and information for specific topics (e.g., hooking a sea turtle). Constructing the restroom facility at the fishing pier would require excavation to place a 1,500 gallon primary septic and 1,050 gallon overflow tank underneath the buildings. However, this work and the informational kiosk's construction would take place in the developed upland area and have no associated in-water work components. However, as part of the construction activity sediment/erosion controls would be implemented to ensure there are no turbidity impacts to nearby waters. BMPs for erosion control could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.

Repair of the approximately 275 foot long section of degraded bulkhead would be performed from upland and in-water locations. In general, the repairs would consist of removing existing, damaged/collapsed sections of the concrete sheet bulkhead that need to be replaced and placing new sections and constructing a new cap. As part of this work the rip-rap behind the existing bulkhead would be removed along with the degraded sections and then new sections would be placed and the riprap replaced. This construction work would mainly take place using heavy equipment located in upland areas. However, the entire project area would be enclosed by an in-water turbidity barrier that would be secured to shore.

Sections of the sheet pile being replaced would likely be push-driven or water jetted most of the way and then a vibratory hammer would be used, if needed, to place the sheet piles to their final depth. After bulkhead installation, construction crews of two to three persons would install approximately 100 feet of rubber bumpers to the open water side of the bulkhead using hand held tools from a combination of upland areas and work skiffs in the water

Best management practices (BMPs) for erosion control associated with the bulkhead work would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Upland silt and sedimentation control measures would be installed and properly maintained at all points where runoff from disturbed areas could result in water quality impacts. This may include the use of filter fences (staked or floating), sedimentation screens, erosion control blankets or other appropriate erosion and turbidity control measures. The in-water use of silt curtains and the dewatering of work areas would further help limit the scope, nature, and extent, of any turbidity impacts. The temporary staging area for the project materials, supplies, and equipment during construction would be located within the existing paved parking lot and material would be loaded directly onto the barge.

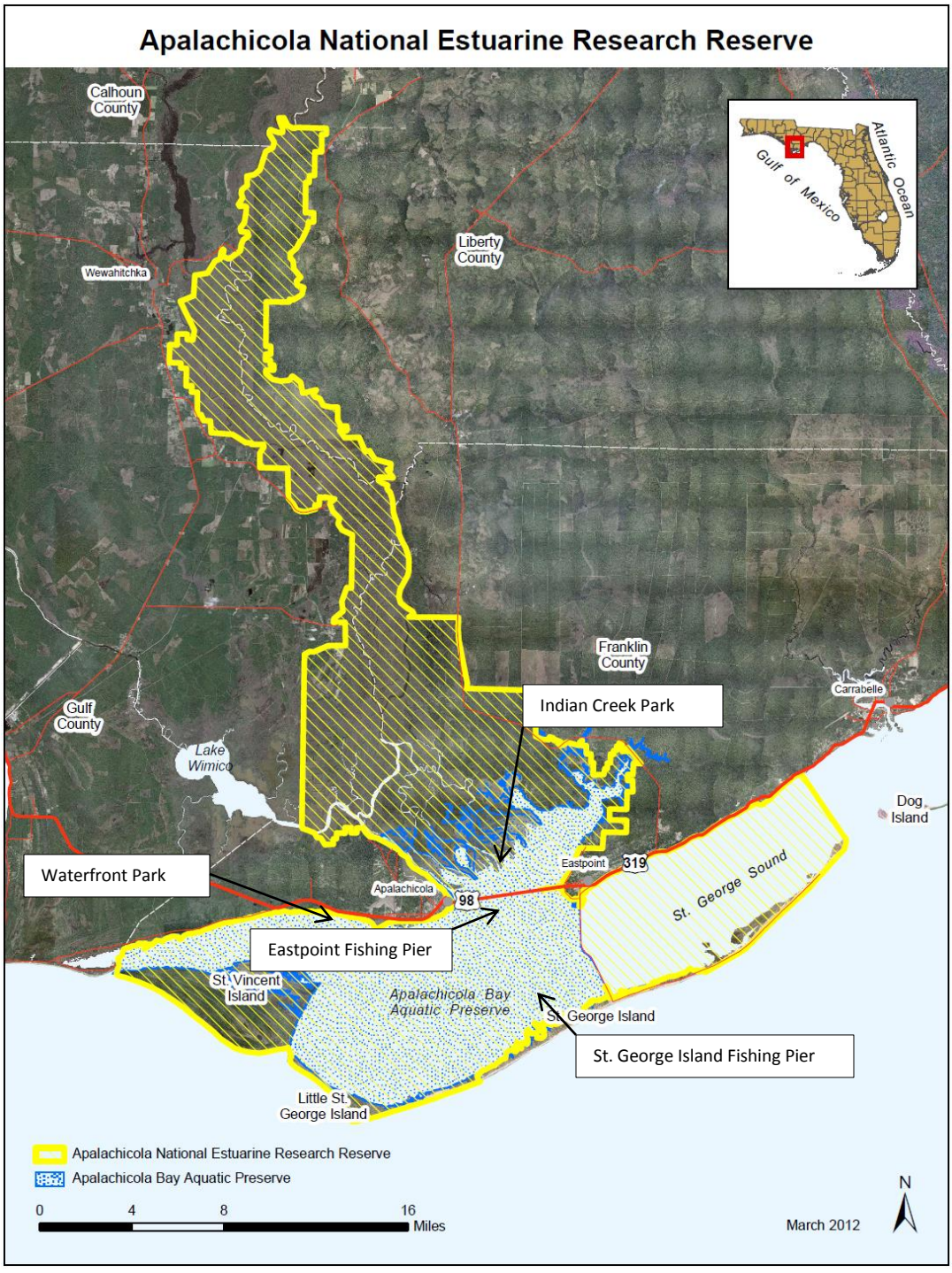

Figure 12-30. Map of Apalachicola National Estuarine Research Reserve and proposed project elements.

Source: ANERR 2013

During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) would be implemented and adhered to. Significant aspects of these provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.

This project could require up to a year of cumulative in-water work.

12.67.4 Operations and Maintenance

Franklin County would be responsible for operation and maintenance of the new amenities and enhancements within the parks consistent with their existing park management maintenance schedules.

The State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

12.67.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.67.5.1 No action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.67.5.2 Physical Environment

12.67.5.2.1 Geology and Substrates

Affected Resources

The project area is located within the Gulf Coastal Plain physiographic region. The basic geomorphology surrounding the project area has been primarily determined by geologic processes which ended about 15,000 years before present. Landforms throughout Franklin County are predominantly comprised of Holocene sediments, alluvium, or beach ridge and dune geology (USGS 2013). The Florida Geological Survey Open Report (No. 80) recognizes the characteristic landscape of Florida is relatively to extremely

flat resulting in few large, natural exposures and limited smaller exposures that geologists can investigate.

Soils in the area are classified within the Apalachicola Delta physiographic subdivision (University of Florida 2013). Located in the south-central portion of the Panhandle, this district is built with sediments deposited by the Apalachicola River. Landscapes range from relic deltas, ridges, and lagoons to river terraces, delta plains, and barrier islands. Karst topography is absent and soil materials are sandy to loamy. The Eastpoint Fishing Pier and the St. George Island Fishing Pier make use of the historic causeway across Apalachicola Bay and comprise impervious surfaces of asphalt, concrete, and stacked rip-rap.

Apalachicola Bay has a sandy/soft-sediment bottom with numerous oyster bars throughout. Almost all of the soils in the project area present high water tables and instability due to wind and water activity. The substrates present along the shorelines comprise stable slopes containing fine sand and beach sediment, while substrates in the submerged off-shore portions include soft sediments and hard reef substrates.

Environmental Consequences

Project enhancements would involve minor modifications to soils. The depth of ground disturbance would depend on final construction design and repairs required; however all construction activities would require at least some ground disturbances up to several feet deep. Soils would be excavated for new pilings for courtesy docks and foundations and septic tanks associated with new restrooms including any excavation to install sewer or utility lines. These activities would be temporary, localized in a footprint a fraction of each park, and any in-water piling work would be performed behind silt curtains to isolate construction impacts. Given that there would be no substantial change in uses at the project sites following implementation of the proposed enhancement activities, it is anticipated there would be no long-term negative impacts to soils. The implementation of the proposed project would therefore result in short-term minor negative and long-term beneficial impacts on soils.

12.67.5.2.2 Hydrology and Water Quality

Affected Resources

Hydrology

Project sites are located and within the Apalachicola Bay. The Apalachicola River is the largest in Florida and ranks 21st in the United States, in terms of volume of flow (FDEP 2013). The Apalachicola River is formed by the confluence of the Chattahoochee and Flint Rivers at the Jim Woodruff Dam and flows 106 miles to Apalachicola Bay. The Apalachicola River can be classified as a large, alluvial river characterized by heavy sediment loads, turbid water, large watersheds, sustained periods of high flow, and substantial annual flooding (FDEP 2013). The mean annual discharge at Sumatra, Florida (River Mile 21), is approximately 25,000 cubic feet per second (cfs).Edmiston (2008) reporting the findings of McNulty et al. (1972) estimates that the Apalachicola River discharge accounts for 35 percent of the total freshwater runoff on the west coast of Florida. The Apalachicola River is tidally influenced up to approximately (RM) 25.

The Apalachicola Bay has a watershed surface area of about 32,000 square miles while the surface area of the estuarine portion is approximately 368 square miles. The Apalachicola Bay has an average depth of about 7.5 feet and a tidal range of about 2 feet. The mean water residence time varies between 6 to 8.5 days.

Water Quality

The Apalachicola River is designated by Florida Surface Water Quality Standards Rule 62-302.530, Fla. Admin. Code, as "Class III: Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife" (FDEP 1996) while Apalachicola Bay is a Class II waterbody (approved for shellfish harvesting). The Bay has been designated as an Outstanding Florida Water (OFW), a National Estuarine Research Reserve, a Florida Aquatic Preserve, a U.S. Environmental Protection Agency (USEPA) Gulf of Mexico Ecological Management Site (GEM), and a United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve. The draft ANERR management plan (2013) classifies the surface waters for shellfish harvesting or propagation or recreation and wildlife.

Although tidal influence in the Apalachicola River extends up past Sumatra (RM 21), salinity is not thought to affect the lower river past RM 6.6 (Edmiston 2008). Salinities throughout the Apalachicola Bay are dependent upon river flow, local rainfall, basin configuration, wind speed and direction, and water currents. They can range from 0 to 33 ppt. Dissolved oxygen values usually range from 4 to 14 mg/L, but most fall between 5 and 12 mg/L (Edmiston 2008).

Water quality concerns have also resulted in the listing of Apalachicola Bay on the 303(d) list of impaired waters under the CWA. States are required to identify waters that do not meet requirements of their designated use. With the exception of one chlorophyll listing for one segment of the Apalachicola Bay, all of the listings are related to mercury in fish or coliforms.

Environmental Consequences

The proposed projects would not increase the amount of impervious surfaces at the parks above existing conditions resulting in minor changes to water resources. BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts associated with construction activities. BMPs for erosion control would be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. Silt and sedimentation control measures would be installed and properly maintained to protect water quality resources. Given that there would be no substantial change in uses at the project sites following implementation of the proposed enhancement activities, it is anticipated that there would be no long-term negative impacts to water resources. The implementation of the proposed project would result in short-term minor negative and long-term beneficial impacts on water resources.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to implementation.

12.67.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The USEPA calculates the Air Quality Index (AQI) for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. The AQI is an index for reporting daily air quality. AQI values are divided into six categories: Good, Moderate, Unhealthy for Sensitive Groups, Unhealthy, Very Unhealthy, and Hazardous. AQI values for Apalachicola, Florida (centrally located in Franklin County where the Apalachicola River meets the Apalachicola Bay) recorded for the past 5 years show air quality is very good. During 2012, the last full year on record at the time of writing, 97.5 percent of the days were reported as 'Good' with the remainder as 'Moderate'. Within the AQI values in these categories represent pollutant levels below the national air quality standard for the pollutants.

Implementation of the project would include transportation and heavy construction equipment, which may include bulldozer, barge, truck, backhoe, tractor trailer, crane, small trucks, and hand tools.

Environmental Consequences

Project implementation would require the use of heavy equipment which would temporarily affect air quality in the project vicinity due to construction vehicle emissions. Demolition and excavation associated with the removal and construction of existing courtesy dock pilings may produce fine particulate matter. BMPs would be employed to prevent, mitigate, and control potential air pollutants during project implementation. Any air quality impacts that would occur would be localized and short in duration. Therefore, any adverse impacts to air quality would be short-term and minor.

Engine exhaust from bulldozers, excavators, trucks, backhoes and other vehicles would contribute to an increase in greenhouse gases (GHG). Table 12-35 describes the likely GHG emission scenario for the implementation of this project.

Based on the assumptions described in Table 12-35 below, and the small scale and short duration of the construction portion of the project, predicted GHG emissions would be short-term and minor and would not exceed 25,000 metric tons per year. Available BMPs would be employed to reduce the release of GHGs during implementation. Based on the small scale and short duration of the project, GHG emissions in the project staging and deployment areas would be minimal. Therefore, any increase in GHG emissions would be short-term and minor.

Table 12-35. Greenhouse gas emission estimates.

PROJECT ACTIVITY	CONSTRUCTION EQUIPMENT	NO. OF HOURS OPERATED	NO. FOR PROJECT	TOTAL CO2E EMISSION RATE[1] (METRIC TONS)
Courtesy Docks, Boat Ramp, and Bulkhead Repair	Small barge w/ crane (pile driving)	8 hours/day, 5 days/week, 1 month	4	23.2 (used crane .29equipment for calculating total)
	tractor trailer (material delivery)	3 trips	4	4.1 (used dump truck .34)
	small power tools (nail guns, saws, drills	8 hr/day, 5 day/week, 4 month	4	51.2 (used pickup truck .16)
	generator (small tools)	8 hr/day, 5 day/week, 4 month	4	64 (used .8 as conversion)
Parking Improvements & Restrooms	Small tools (nail guns, saws, drills)	8 hr/day, 5 day/week, 6 months	3	14.4
	Tractor trailer (material delivery)	1 trip / week, 6 months	3	24.5
	generator (small tools)	8 hr/day, 5 day/week, 6 months	3	96
Total				277.4
Note: 1. Includes CO2, CH4, and NOx				

12.67.5.2.4 Noise

Affected Resources

The primary sources of ambient (background) noise in the project area are operation of vehicles, humans, recreational vessels, and natural sounds such as wind and wildlife. City noise is mainly from vehicles and also occasional human activities. The levels of noise in the project area vary, depending on the season, and/or the time of day, the number and types of sources of noise, and distance from the sources of noise.

Environmental Consequences

Park visitors and wildlife may be sensitive to changes in noise sources or levels due to the project construction. The proposed project would generate construction noise associated with equipment during construction of the boat docks, parking areas, restrooms, and other amenities. Construction equipment and pile driving noise is known to disturb nesting shorebirds. Construction noise can also be a nuisance to residents living on the shorelines adjacent to project construction activities or to park visitors.

Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours. Because construction noise is temporary, any

negative impacts to the human environment during construction activities would be short-term and minor.

Once facilities are constructed, noise can be generated from facility operations and the vehicles associated with these facilities. However, these noise levels would be representative of existing levels and similar in nature to those generated prior to construction of the project. Overall, long-term noise impacts from personal vehicle use, boating, fishing, and other recreational activities would be minor.

12.67.5.3 Biological Environment

12.67.5.3.1 Living Coastal and Marine Resources

Affected Resources

The ANERR habitats include barrier island, estuarine, riverine, floodplain, and upland environments. Major estuarine habitats found within the ANERR include oyster bars, submerged vegetation, tidal flats, soft sediment, marshes and open water. Upland habitats include sandhills, coastal scrub, pine flatwoods, and mixed hardwood communities. Wetland habitats include freshwater marsh, salt marsh, riverine, lacustrine, palustrine, open bay, and the Gulf of Mexico.

Flora

More than 1,500 plant species have been identified within the Apalachicola drainage basin with 107 of them listed as protected under State or Federal law. A variety of vegetative communities, such as coastal scrub, dunes, pine flatwoods, oak hammocks, marshes, ponds, and sloughs are found on the ANERR islands. Vegetation in the salt marshes is made up primarily of black needlerush, smooth cordgrass, and saltgrass.

Fauna

The area is also home to 308 species of birds, 186 species of fish, 57 species of mammals, and it boasts the highest species density of amphibians and reptiles in all of North America, north of Mexico (ANERR 1998). Among the many species of reptiles and amphibians are the southern dusky salamander, the gopher frog, Barbour's map turtle (which is endemic to the Apalachicola River), loggerhead turtle northwest Atlantic distinct population segment, Apalachicola kingsnake, and eastern indigo snake. More than 50 species of mammals found within the Apalachicola basin. Opossum, bats, shrews, mice, moles, voles, rabbits, and other small mammals are plentiful in the ANERR. Other mammals sighted include foxes, weasels, black bears, mink, bobcats, coyotes, deer, feral pigs, bottlenose dolphin, and the West Indian manatee.

Protected Species

Protected species and their habitats include ESA-listed species and designated critical habitats, which are regulated by either the USFWS or the NMFS. Protected species also include marine mammals protected under the Marine Mammal Protection Act, essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and bald eagles protected under the Bald and Golden Eagle Protection Act (BGEPA).

Endangered Species Act

The Trustees have reviewed the proposed projects for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Franklin County, Florida23. Table 12-36 presents a summary of these potentially affected species/critical habitats and the nature of the potential impact that could result from project implementation.

Table 12-36. Potential Impacts to Species/Critical Habitats managed by USFWS

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Green turtle, Hawksbill turtle[a], Kemp's ridley turtle; Leatherback turtle[a], Loggerhead turtle	The main risk to sea turtles during implementation of this project would come from in-water construction activities which could result in harm or mortality. Consultation has been initiated with NMFS the agency that has jurisdiction to review impacts to sea turtles in the estuarine and marine environments. No sea turtle nesting habitat is present at any of the proposed project locations. Sea turtles do nest on the Gulf side of nearby locations (i.e., St. Vincent's NWR and St. George Island). Educational signage or information at kiosks will remind visitors of any necessary measures to protect nesting sea turtles. Therefore, the Trustees expect no impacts from construction and potential impacts from use of ramps to be minimized to an insignificant and discountable level.
Loggerhead proposed critical habitat	No critical habitat is designated within any of the project sites. Proposed critical habitat for loggerhead sea turtles is on the Gulf side of St. Vincent's NWR and St. George Island. PCEs for proposed loggerhead critical habitat include: 1) Suitable nesting beach habitat that: (a) has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides. 2) Sand that: (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and moisture content conducive to embryo development. 3) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. Visitors to nearby islands using the ramps in this project are not expected to alter the PCEs for proposed critical habitat; therefore, no proposed critical habitat will be adversely affected or modified.
West Indian manatee	Franklin County is not one of the 36 Florida counties in which manatees regularly occur in coastal and inland waters (U.S. Department of the Interior, 2011). However, manatees could be present in the project waters. The main risk to manatees during implementation of this project would come from use of erosion control measures during construction, construction noise and boat collision during use which could result in harm or mortality. Conservation measures below are designed to avoid impacts from erosion control measures and noise, and information at kiosks and signage will minimize impacts from boaters to manatees potentially present in the area such that impacts are insignificant and discountable.

[23] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

SPECIES/CRITICAL HABITAT	SPECIES/CRITICAL HABITAT IMPACTS
Piping plover and red knot Piping plover critical habitat	Piping plover and red knot are not expected to be using habitats present at any of the proposed project locations. However, both use nearby areas (i.e., St. Vincent's NWR and St. George Island). Piping plover critical habitat is present on the bay side of St. George Island. Visitors will be informed of any necessary protective measures for these species through information available at kiosks, signage, or staff (waterfront park). The educational signage is expected to inform visitors such that impacts from their presence is minimized to an insignificant and discountable level. PCEs of piping plover critical habitat include: 1) Intertidal flats with sand or mud flats (or both) with no or sparse emergent vegetation. 2) Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers. Such sites may have debris, detritus, or microtopographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. 3) Important components of the beach/dune ecosystem include surf-cast algae, sparsely vegetated back beach and salterns, spits, and washover areas. 4) Washover areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action. The proposed project will not alter any PCEs within the critical habitat as activities will not extend into critical habitat or influence the way PCE's are formed or maintained. Visitors to nearby islands using the ramps in this project area are not expected to alter the PCEs for proposed critical habitat as visitors would not be buiding/constructing on the beaches in a way that changes the shoreline and how it is formed; therefore, no destruction or adverse modification of piping plover critical habitat is anticipated. Critical habitat PCEs include low/no disturbance to areas. Signs and enforcement can alter or remove potential impacts.
Gulf sturgeon	NMFS was consulted on Gulf sturgeon and its Critical Habitat in the estuarine environment. As a result, Gulf Sturgeon was not considered in the consultation with the USFWS.

In addition to the protected species managed by DOI the Trustees reviewed the proposed projects and associated actions for potential impacts to protected species managed by NMFS.

The exception to this review was the proposed Eastpoint Fishing Pier Improvements project. Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that the proposed Eastpoint Fishing Pier Improvements project falls outside of NMFS Endangered Species Act (ESA) jurisdiction, as it does not contain suitable habitat for species managed by NMFS. As a result, this project component of the larger Enhancement of Franklin County Boat Ramps project did not require further ESA evaluation from NOAA.

For the remaining project components (Waterfront Park Improvement Project, Indian Creek Park Boat Ramp Project, and St. George Island Fishing Pier Improvement) the Trustees reviewed the proposed projects and associated actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Smalltooth Sawfish, *Pristis pectinata,* Endangered
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered

- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Submerged Habitats and Vegetation

Oyster bars cover more than 10,600 acres of submerged bottom within the ANERR boundaries. The American oyster is the dominant component on the bars which cover approximately 10 percent of the Bay bottom. Important associated organisms include oyster predators such as southern oyster drills, stone crabs, blue crabs, crown conchs, flatworms, and boring clams. Other organisms which inhabit oyster bars include mussels, mud crabs, flat crabs, blennies, toadfish, gastropods, and many other transitory organisms that are commercially important species (Menzel et al. 1966, as summarized by ANERR 1998). St. George Island fishing pier and Eastpoint Fishing pier are in proximity to these oyster bars.

According to the Draft Apalachicola Reserve Management Plan (2013), submerged vegetation found in the Apalachicola Bay includes fresh water, brackish, and marine species. Their distribution is confined to the shallow perimeters of the system because of high turbidity which limits the depth of the photic zone. The shallow bayside regions of St. George and the mainland areas of St. George Sound support seagrasses with shoal grass the dominant species. Turtle-grass and manatee-grass are found in deeper, higher salinity waters in the eastern reaches of the Bay. Widgeon-grass and tapegrass are found near the mouth of the river and in the upper reaches of the Bay.

Tidal marshes are extensive along the East Bay and along the lower reaches of the Apalachicola River. The marshes in the higher salinity regions in proximity to the open Bay are dominated by black needlerush, cordgrasses, and saltgrass (ANERR 2013, modified from Livingston 1984). Marshes fed by tidal creeks and bayous northward of the Bay support predominantly fresh to brackish water vegetation consisting primarily of sawgrass, cattails, and bulrushes.

Essential Fish Habitat (EFH)

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. Table 12-37 through Table 12-39 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Waterfront Park, Indian Creek Park, and St. George Island Fishing Pier sites respectively because of slight differences in the species covered across the locations.

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that the Easpoint Fishing Pier project falls outside of NMFS Endangered Species Act (ESA) jurisdiction, as it does not contain suitable habitat for species managed by NMFS. As a result, the project did not require further ESA evaluation from NOAA.

Table 12-37. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed Waterfront Park project area.

EFH_Category	Species
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark - Adult
	Atlantic Sharpnose Shark - Juvenile
	Atlantic Sharpnose Shark - Neonate
	Blacknose Shark - Adult
	Blacknose Shark - Juvenile
	Blacknose Shark - Neonate
	Blacktip Shark - Adult
	Blacktip Shark - Juvenile
	Blacktip Shark - Neonate
	Bonnethead Shark - Adult
	Bonnethead Shark - Juvenile
	Bonnethead Shark - Neonate
	Bull Shark - Adult
	Bull Shark - Juvenile
	Finetooth Shark - Adult - and - Juvenile
	Great Hammerhead Shark - All
	Nurse Shark - Juvenile
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Spinner Shark - Adult
	Spinner Shark - Juvenile
	Spinner Shark - Neonate
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Spanish Mackerel
	Cobia
	King Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Pink Shrimp
	White Shrimp
	Brown Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper

EFH_Category	Species
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish

Table 12-38. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed Indian Creek Park project area.

EFH Category	Species
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark-Adult
	Atlantic Sharpnose Shark-Juvenile
	Atlantic Sharpnose Shark-Neonate
	Blacknose Shark-Adult
	Blacknose Shark-Juvenile
	Blacknose Shark-Neonate
	Blacktip Shark-Adult
	Blacktip Shark-Juvenile
	Blacktip Shark-Neonate
	Bonnethead Shark-Adult
	Bull Shark-Juvenile
	Finetooth Shark-Adult-and-Juv
	Great Hammerhead Shark-All
	Nurse Shark-Juvenile
	Scalloped Hammerhead Shark-Juvenile
	Scalloped Hammerhead Shark-Neonate
	Spinner Shark-Juvenile
	Spinner Shark-Neonate
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Spanish Mackerel
	Cobia
	King Mackerel
Gulf of Mexico Red Drum	

EFH Category	Species
	Red Drum
Gulf of Mexico Shrimp	
	Pink Shrimp
	White Shrimp
	Brown Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish

Table 12-39. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed St. George Island Fishing Pier project area..

EFH Category	Species
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark - Adult
	Atlantic Sharpnose Shark - Juvenile
	Atlantic Sharpnose Shark - Neonate
	Blacknose Shark - Adult
	Blacknose Shark - Juvenile
	Blacknose Shark - Neonate
	Blacktip Shark - Adult
	Blacktip Shark - Juvenile
	Blacktip Shark - Neonate

EFH Category	Species
	Bonnethead Shark - Adult
	Bonnethead Shark - Juvenile
	Bonnethead Shark - Neonate
	Bull Shark - Adult
	Bull Shark - Juvenile
	Finetooth Shark - Adult and Juvenile
	Great Hammerhead Shark - All
	Nurse Shark - Juvenile
	Scalloped Hammerhead Shark - Juvenile
	Scalloped Hammerhead Shark - Neonate
	Spinner Shark - Juvenile
	Spinner Shark - Neonate
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Cobia
	King Mackerel
	Spanish Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Brown Shrimp
	Pink Shrimp
	White Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper

EFH Category	Species
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

State-listed Birds, MBTA, and BGEPA

The proposed project was also reviewed for impacts to bald eagles and migratory birds in accordance with the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668-668c) and the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–712), respectively. Table 12-40 provides a summary of the different migratory bird groups specifically addressed by this review and summarizes the potential impacts to these groups and associated habitats that could result from the implementation of this project.

Table 12-40. Potential project impacts to different migratory bird groups

SPECIES	BEHAVIOR	SPECIES/HABITAT IMPACTS
Shorebirds	Foraging, feeding, resting, nesting	Shorebirds forage, feed, and rest,in the types of habitats at the project sites and nest on nearby islands that may be accessed by visitors using the ramps. As such, they may be impacted locally and temporarily by the project.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	Resting, roosting, nesting	Seabirds forage in water and rest/roost in terrestrial habitats including dunes. However, the level of project activity in open water is unlikely to startle resting birds and because activities will occur during the day roosting should not be impacted.
Upland birds (Passerines and near passerines)	Feeding, resting, nesting	These species may be using habitats adjacent to the project site for feeding, resting, and nesting. As such, they may be impacted locally and temporarily by construction noise and noise from visitors in the project areas.

Considering the nature of the potential project and the potential impacts to migratory bird groups and associated habitats, a number of conservation measures were identified and will be followed to minimize potential impacts. These measures are summarized in Table 12-41.

Table 12-41. Conservation measures to minimize impacts to migratory bird groups

SPECIES/SPECIES GROUP	CONSERVATION MEASURES TO MINIMIZE IMPACTS
All	Care will be taken to minimize noise and physical disruptions during construction near areas where foraging or resting birds are encountered. All construction disturbances will be localized and temporary. Signage will be installed/updated to provide users of the ramps with information on sensitive species and areas and appropriate actions to take with species interactions (e.g., what to do if a sea turtle or nesting migratory bird is encountered).
Shorebirds	The Trustees expect foraging and resting birds will be able to move to another nearby location to continue foraging and resting if disturbed.
Seabirds (terns, gulls, skimmers, double-crested cormorant, American white pelican, brown pelican)	The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only.
Upland birds (Passerines and near passerines)	No work will occur in adjacent vegetated areas where upland birds could be nesting. The general behavior of these birds is to mediate their own exposure to human activity when given the opportunity, which they will have. Roosting should not be impacted because the project will occur during daylight hours only.

Environmental Consequences

The USFWS reviewed reviewed the proposed Enhancement of Franklin County Parks and Boat Ramps Project (Waterfront Park Improvement Project, Indian Creek Park Boat Ramp Project, Eastpoint Fishing Pier Improvement Project, and St. George Island Fishing Pier Improvement Project) in Franklin County, Florida for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA. On March 24, 2014, the review of potential impacts to species managed by USFWS was completed (McClain, 2014). The USFWS concurred with the Trustees' determination that the proposed project may affect, but is not likely to adversely affect five species of sea turtles in terrestrial habitats (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), piping plover, red knot (if listed), and West Indian manatee.

USFWS also concurred with the Trustees' determination the the proposed projects would not result in adverse modification or destruction of critical habitat for piping plover or loggerhead sea turtle (if designated) based upon the successful implementation of the identified conservation measures.

Consultations of potential impacts on protected species managed by NMFS from these projects, excluding the Easpoint Fishing Pier, were initiated on February 9, 2014 for the St. George Island Fishing Pier and on February 11, 2014 for Indian Creek Park and the Franklin County Waterfront Park. The Trustees' review of the potential impacts of these projects for protected species managed by NMFS determined the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon Critical Habitat- The proposed project footprint falls within an identified Gulf sturgeon critical habitat unit (Critical Habitat Unit 13 – Apalachicola Bay); however, it has been

determined that the construction activities associated with this project will not adversely affect the PCE's associated with this habitat or modify designated Gulf sturgeon critical habitat.

- Gulf Sturgeon - The proposed may project affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Smalltooth Sawfish – The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

The Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Essential Fish Habitat (EFH)

In their assessments of potential impacts to EFH, the Trustees concluded the projects were unlikely to adversely affect EFH as the work was taking place within existing developed footprints and would be minor and brief. Further, no habitat would be converted as part of these projects.

NMFS reached the following conclusions with respect to the potential impacts on EFH f the proposed project elements:

- Waterfront Park Improvement Project: On March 17, 2014 NMFS concurred with the Trustees' assessment that the impacts of the proposed project are not likely to adversely affect EFH (Fay, 2014a).
- Indian Creek Park Boat Ramp Project: On March 24, 2014 NMFS concurred with the Trustees' assessment that the impacts of the proposed project are not likely to adversely affect EFH and any disturbance to species would be minor and brief (Fay, 2014b).
- St. George Island Fishing Pier Improvement Project: On March 17, 2014 NMFS concurred with the Trustees' assessment that the short-term and long-term impacts of the proposed project on EFH would be minor (Fay, 2014c).

State-listed Birds, MBTA, and BGEPA

Bald eagles are not present at the project location so will not be affected At the same time, implementation of the conservation measures previously identified in the review of potential impacts to migratory birds will prevent take of the identified migratory bird groups.

12.67.5.3.2 Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project areas, and possibly expand out into adjacent areas after the initial introduction. The invasive species threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project sites or could be introduced through the projects have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the projects will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.67.5.4 Human Uses and Socioeconomics

12.67.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

In 2012, the population of Franklin County was estimated at 11,686, which ranks 65th among Florida's 67 counties and accounts for less than one percent of the Florida population (US Census 2013). Approximately 79 percent of the population in Franklin County is white (not Hispanic or Latino), 14 percent is black or African American, 5 percent is Hispanic or Latino, and 1.6 percent consider themselves more than two races. Around 7 percent of the county speaks a language other than English at home. Median household income (2007-2011) in Franklin County and the state is $37,017 and $47,827, respectively with 24 percent of the county and 15 percent of the state living below the poverty level (Census 2012). Apalachicola and Carrabelle are the only municipalities within Franklin County.

Historically more than 65 percent of the Franklin County work force has been employed by the commercial fishing industry, although this has been changing with the increasing importance of tourism to the area (ANERR 2013). Oysters, shrimp, blue crab, and finfish continue to make up the bulk of the

catch with an estimated value of more than $134 million in economic output annually and an additional $71 million in value-added benefits (Crist 2007, as reported by ANERR 2013).

Environmental Consequences

The estimated cost to construct the proposed project at the five parks is just under $1.8M. There would be direct financial benefits to the contractors supplying the labor, oversight, project management, and monitoring to construct the new amenities as well as the material suppliers. Direct, short-term, moderate benefits through local job creation would result from construction activities. There would be minor indirect beneficial impacts to the local economy due to possible increased recreational and activity in response to improvements at the Parks. These economic benefits would be concentrated in the service and retail industry sectors. Beneficial economic impacts would accrue to local recreational supply retailers, restaurants, and hospitality providers. The proposed project would not adversely affect any low income or minority populations. Overall, no adverse impacts would occur to socioeconomics and environmental justice as a result of the proposed project.

12.67.5.4.2 Cultural Resources

Affected Resources

People have lived in the coastal region of the Gulf of Mexico for more than 10,000 years. Today many unique and diverse cultures call the Gulf coast home. These cultures, past and present, are often closely linked to the environmental and natural resources which comprise the Gulf Coast ecosystem and which this project seeks to restore.

The Franklin County Comprehensive Plan identifies the Indian Creek Park as a County Archaeological Site.

The different components of the overall Enhancement of Franklin county Parks and Boat Ramps project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties.While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area .

Environmental Consequences

A complete review of the elements of this overall project under Section 106 of the NHPA is ongoing and would be completed prior to any component-specific project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. The individual project elements of the overall project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.67.5.4.3 Infrastructure

Affected Resources

Current facilities include parking, boat ramps, courtesy docks, and existing bulkheads. Temporary porta-john type facilities currently serve as restrooms for the recreating public.

Environmental Consequences

During the construction activities, there would be short-term disruptions of parking and public access to facilities within the Parks, but over the long-term the project would enhance public use of the facilities and recreational opportunities. Aside from improvements to basic sanitation facilities there would be no changes to infrastructure or additional public utility requirements under the proposed project. Construction waste would be removed by the contractor to an appropriate landfill using dump trucks, roll-off dumpsters, or trailers. The current closest landfill is the Franklin County Central Landfill located in Eastpoint. The landfill capacity has not been reached. Any adverse impacts would be short-term and minor.

12.67.5.4.4 Land and Marine Management

Affected Resources

Land use characteristics influence runoff patterns, types of pollutants, water quality and quantity, and virtually all aspects of riverine and river-dominated estuarine systems. Franklin County is predominantly rural with 93 percent of the total county area of 348,800 acres zoned either forestry conservation, forestry agriculture, preservation, recreation, or submerged bottomlands (ANERR 1998**;** Table 12-42). Franklin County has a relatively sparse population density of 21 persons per square mile (US Census Bureau 2013).

Table 12-42. Franklin County land use.

LAND USE	TOTAL ACRES	PERCENTAGE OF COUNTY
Incorporated Areas	1,760	5
Residential	16,071	4.7
Commercial	840	0.2
Industrial	1,325	0.4
Public Facilities	560	0.2
Recreation	1,894	0.5
Conservation	40,608	11.6
Agricultural	265,347	76.0
Water	20,395	5.9
TOTAL	**348,800**	**100**

Source: ANERR 1998

All five project sites provide water access for the recreating public. Franklin County identifies the existing land use at the five parks as either residential, commercial, or conservation lands. Shoreline uses adjacent to the parks include residential access (e.g., private docks), armored shorelines (e.g., riprap or bulkhead), or undeveloped shorelines.

Environmental Consequences

The project would not change the current land use, zoning, or cause any amendments to management plans that relate to the project area. The action areas would remain zoned for recreational use, which allows for structures related to outdoor activities such as boating and fishing. Thus, no impacts would occur to Land Management under the proposed Project.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.67.5.4.5 Aesthetics and Visual Resources

Affected Resources

The general visual character of the region can be described as semi-rural, with residential and commercial areas concentrated in Apalachicola, East Point and St. George Island and along major roads and highways in the area. Residential communities in this region are interspersed with commercial developments located along major roadways, with some larger areas remaining in agricultural use or as undeveloped open space. The topography is flat. Most recreational activities at the parks involve the use of the natural setting. For example, activities such bird watching and fishing benefit from the natural settings to enhance experiences. During the construction of the improvements, the materials, workers, and equipment would be staged adjacent to the worksites, on site within existing parking areas. The proposed construction is consistent with the surrounding structures and typical of amenities located within the neighboring areas.

Environmental Consequences

Temporary impacts to visual resources would result from construction of the proposed project. Large construction equipment such as backhoes for demolition and excavation would temporarily obstruct the shoreline views for visitors and recreational users at the site. The addition of the restrooms would change the sightlines at Indian Creek Park, Eastpoint Fishing Pier, and St. George Fishing Pier, but the construction would be consistent with neighboring land uses and structures. The structures would not negatively attract attention, dominate the view, or detract from the current user activities or experiences. Any adverse impacts to aesthetic and visual resources would be short-term and minor.

12.67.5.4.6 Tourism and Recreational Use

Affected Environment

The proposed project action areas provide recreational access for boaters and anglers to Apalachicola Bay and River. Recreation is an important activity within ANERR; however, the supply of recreation opportunities is provided by other entities such as Franklin County, State of Florida, or other federal agencies. These opportunities include boat and shoreline saltwater fishing, boat and shoreline fresh water fishing, hunting, hiking, camping, nature study, birding, canoeing, kayaking, boating, shelling, beach activities, swimming, and nature photography.

Waterfront Park and Indian Park provide boat launch opportunities in residential and light commercial type settings to Apalachicola Bay. Each ramp is designed to accommodate between 10-20 vehicles with trailers at one time. Given the limited amount of space annual visitation is modest compared to larger, multi-amenity, recreation opportunities in the region such as the St. George Island State Park. The

Eastpoint and St. George Fishing Piers each provide more than 3,000 feet of pier for angling; however, the parking at each site is limited to between 20 to 30 spaces.

Environmental Consequences

During the construction period, recreational experience would be impacted from noise and visual disturbances associated with the use of heavy equipment. Access to certain areas could also be restricted or impacted to some degree during construction activities. During construction, it would be necessary to close portions of the parks to public access to ensure public safety. However, this would be limited to the amount of time necessary to complete the construction and would be reopened after completion. To the maximum extent practicable, parking lots would remain open to allow for public use during construction until the new parking areas are completed. The construction may have moderate impacts to public access and use of the boat ramps. While these temporary inconveniences would result in minor short-term impacts recreational use during the construction and rehabilitation activities at the shoreline, over the long term improved access and enhanced facilities would result in minor benefits to recreational use and enjoyment of the facilities. Overall, the implementation of the proposed project would contribute positively to visitor experience and public access. Any adverse impacts to tourism and recreational use would be short-term and minor.

12.67.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

The project and its construction are not anticipated to generate hazardous waste or the need for disposal of hazardous waste. All waste generated during the construction of the amenities would be disposed in the appropriate waste or recycle collection receptacles in the park or hauled off to an approved waste disposal site. All occupational and safety regulations and laws would be followed to ensure safety of all workers and the public.

Environmental Consequences

No hazardous waste would be created during construction of the improvements. All hazardous materials handled during construction would be contained and appropriate barriers would be in place to ensure the protection of adjacent water resources from potential spills and leaks. BMPs in accordance with OSHA and state and local requirements would be incorporated into construction activities on site to ensure the proper handling, storage, transport and disposal of all hazardous materials. Personal protective equipment would be required for all construction personnel and authorized access zones would be established at the perimeter of the worksite during construction. Soil and sediment stabilization measures would be incorporated into project design as needed in areas where the potential exists for erosion to occur in order to protect resources and ensure public health and safety. No adverse impacts to public health and safety and shoreline projection are expected as a result of this project.

New restroom facilities would have a beneficial impact to human exposure and sanitation issues as the public would be provided an upgrade to their sanitary facility options.

12.67.6 Summary and Next Steps

The proposed Enhancement of Franklin County Parks and Boat Ramps – Indian Creek Park project would improve the existing Indian Creek Park boat launch facility in Franklin County. The proposed

improvements include constructing restroom facilities, connecting them to an existing central wastewater facility nearby, and renovating the existing boat ramp, bulkhead, and parking area to enhance water access. The proposed Enhancement of Franklin County Parks and Boat Ramps – Eastpoint Fishing Pier Improvement project would add restroom facilities to the base of the existing public East Point Fishing Pier in Franklin County. The proposed improvements include not only constructing new restrooms, but a holding tank that would be pumped out regularly. The proposed improvements include constructing additional docks to enhance water access. The proposed Enhancement of Franklin County Parks and Boat Ramps – Waterfront Park project would improve the existing Waterfront Park in Apalachicola. The proposed improvements include enhancing existing parking and adjacent tie-up docks to enhance water access. In addition an existing onsite building would be enhanced to serve as an information center and dockmaster office. The proposed Enhancement of Franklin County Parks and Boat Ramps – St. George Island Fishing Pier Improvements project would enhance the existing public St. George Island public Fishing Pier in Franklin County. The proposed improvements include constructing restrooms and a holding tank that would be pumped out regularly since there is no central wastewater facility on the island. The proposed improvements also include renovating the existing bulkhead that leads up to the pier and protects the road to the pier. These projects are consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects would enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp area, fishing piers, and the waterfront park. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

12.67.7 References

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12.68 Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Project Description A (Cash Bayou)

12.68.1 Project Summary

The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Cash Bayou project would improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing a fishing and wildlife observation structure and parking area. The total estimated cost of the project is $209,171.

12.68.2 Background and Project Description

The Trustees propose to improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area (see Figure 12-31 for project location). The objective of the Apalachicola Cash Bayou project is enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. The restoration work proposed includes constructing a fishing and wildlife observation structure and parking area.

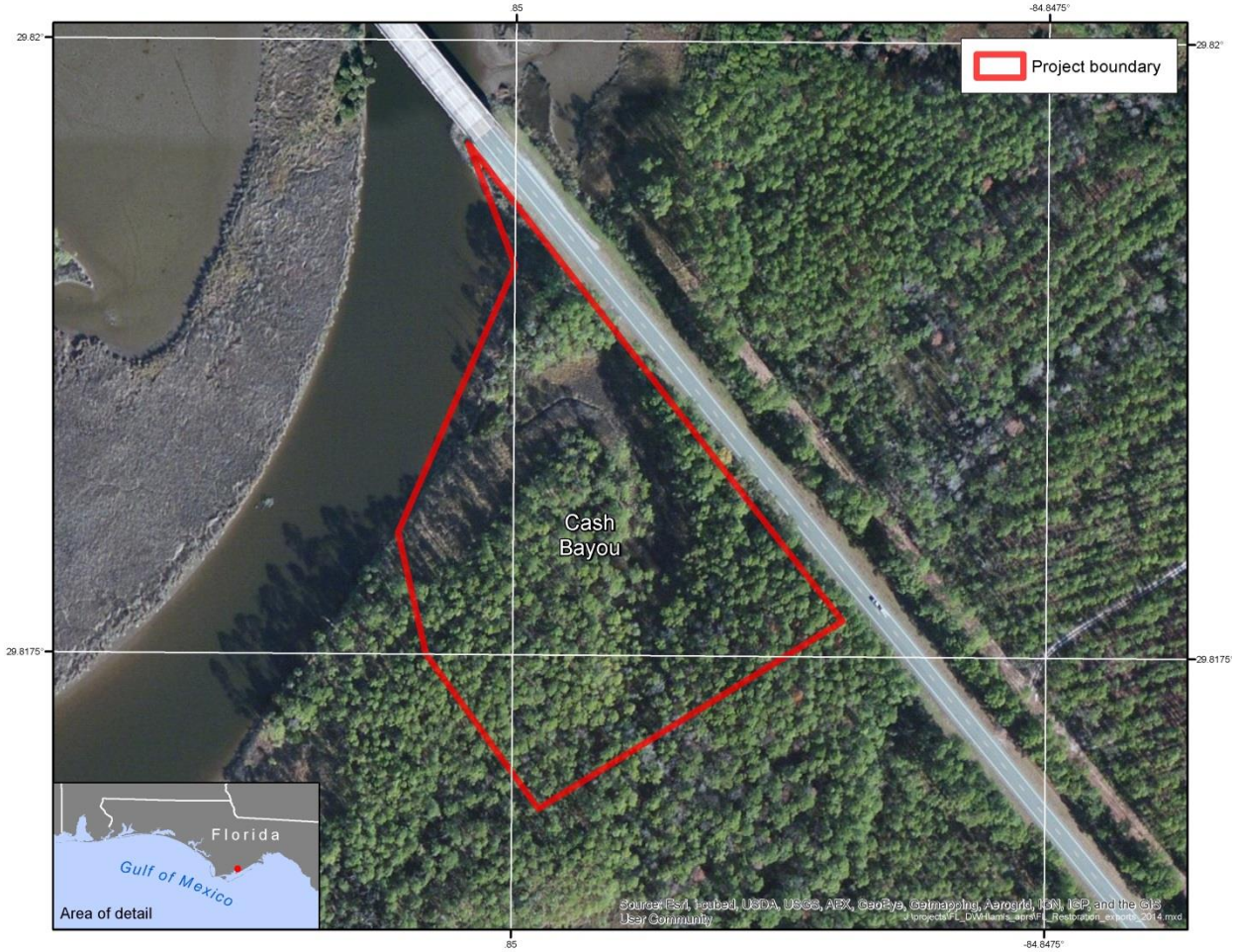

Figure 12-31. Location of Apalachicola River Wildlife and Environmental area fishing and wildlife viewing access improvements project, Cash Bayou location.

12.68.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Cash Bayou project is intended to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The project is technically feasible and uses proven techniques with established methods and documented. Further, the project can be implemented with minimal delay. The Florida Fish and Wildlife Conservation Commission's Wildlife Management Areas program has successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.69, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration with the exception of noise which will be minor, localized and long term. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.69 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements, Cash Bayou Location project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.68.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the Apalachicola River Wildlife and Environmental Area. Performance monitoring will evaluate: 1) the construction of a 700 square-foot fishing and wildlife observation structure, and 2)

the construction of a parking area. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Florida Fish and Wildlife Conservation Commission (FWC) and Franklin County as part of their regular public facilities maintenance activities. FWC or Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Franklin County will also be responsible for long-term maintenance of the observation platform and parking area and will inspect them regularly. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by FWC and Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, FWC and Franklin County will monitor the recreational use activity at the site. FWC and Franklin County staff will visit the site twice a year to count the number of users at the new fishing and wildlife observation structure. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.68.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements project, of which this is a component, are $525,978 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[24]

12.68.6 Costs

The total estimated cost to implement this project is $209,171. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[24] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.69 Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Project Description B (Sand Beach)

12.69.1 Project Summary

The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project would improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing an elevated boardwalk that would be built on an existing, periodically wet interpretative trail. The total estimated cost of the project is $53,818.

12.69.2 Background and Project Description

The Trustees propose to improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area (see Figure 12-32 for project location). The objective of the Apalachicola Sand Beach project is enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. The restoration work proposed includes constructing an elevated boardwalk that would be built on an existing, periodically wet interpretative trail.

12.69.3 Evaluation Criteria

This proposed project meets the evaluation criteria established for OPA and the Framework Agreement. As a result of the *Deepwater Horizon* oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project is intended to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. This project would enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

Figure 12-32. Location of Apalachicola River Wildlife and Environmental area fishing and wildlife viewing access improvements project, Sand Beach location.

The project is technically feasible and uses proven techniques with established methods and documented results. Further, the project can be implemented with minimal delay. The Florida Fish and Wildlife Conservation Commission's Wildlife Management Areas program has successfully completed projects of similar scope throughout Florida over many years. For these reasons, the project has a high likelihood of success. See 15 C.F.R. § 990.54(a)(3); and Section 6e of the Framework Agreement. Additionally, the cost estimates are based on similar past projects and therefore the project can be conducted at a reasonable cost. See 15 C.F.R. § 990.54(a)(1); and Section 6e of the Framework Agreement.

A thorough environmental review, including review under applicable environmental laws and regulations, as described in section 12.69, indicates that adverse impacts from the project would largely be minor, localized, and often of short duration with the exception of noise which will be minor, localized and long term. In addition, the best management practices and measures to avoid or minimize adverse impacts described in 12.69 would be implemented. As a result, collateral injury would be avoided and minimized during project implementation (construction and installation and operations and maintenance). See 15 C.F.R. § 990.54(a)(4). Finally, this proposed project is not anticipated to negatively

affect regional ecological restoration and is therefore not inconsistent with the long-term restoration needs of the State of Florida. See Section 6d of the Framework Agreement.

Many recreational use projects, including ones similar to this project, have been submitted as restoration projects on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and to the State of Florida (http://www.deepwaterhorizonflorida.com). In addition to meeting the criteria for the Framework Agreement and OPA, the Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements, Sand Beach Location project also meets the State of Florida's additional criteria that Early Restoration projects occur in the 8-county panhandle area in which boom was deployed and that was impacted by response and SCAT activities for the Spill.

12.69.4 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. Performance monitoring will evaluate the construction of a 6-foot-wide boardwalk on the periodically wet 1/4-mile Sand Beach interpretive trail. Specific success criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boardwalk is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Florida Fish and Wildlife Conservation Commission (FWC) and Franklin County as part of their regular public facilities maintenance activities. FWC or Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Franklin County will also be responsible for long-term maintenance of the boardwalk and will inspect it regularly. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by FWC and Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, FWC and Franklin County will monitor the recreational use activity at the site. FWC and Franklin County staff will visit the site twice a year to count the number of users at the new boardwalk. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

12.69.5 Offsets

The Trustees and BP negotiated a BCR of 2.0 for the proposed recreational use project. NRD Offsets for the entire Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements project, of which this is a component, are $525,978 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Florida, which will be determined by the Trustees' assessment of lost recreational use for the

Oil Spill. Please see Chapter 7 of this document (Section 7.2.2) for a description of the methodology used to develop monetized Offsets.[25]

12.69.6 Costs

The total estimated cost to implement this project is $53,818. This cost reflects current cost estimates developed from the most current information available to the Trustees at the time of the project negotiation. The cost includes provisions for planning, engineering and design, construction, monitoring, and contingencies.

[25] For the purposes of applying the NRD Offsets to the calculation of injury after the Trustees' assessment of lost recreational use for the Spill, the Trustees and BP agree as follows:

- The Trustees agree to restate the NRD Offsets in the present value year used in the Trustees' assessment of lost recreational use for the Spill.
- The discount rate and method used to restate the present value of the NRD Offsets will be the same as that used to express the present value of the damages.

12.70 Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Environmental Review

The proposed Apalachicola Cash Bayou project would improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing a fishing and wildlife observation structure and parking area. The proposed Apalachicola Sand Beach project would improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area. The proposed improvements here include constructing an elevated boardwalk that would be built on an existing, periodically wet interpretative trail.

12.70.1 Introduction and Background

In April 2011, the Natural Resource Trustees (Trustees) and BP Exploration and Production, Inc. (BP) entered into the Framework Agreement for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill (Framework Agreement). Under the Framework Agreement, BP agreed to make $1 billion available for Early Restoration project implementation. The Trustees' key objective in pursuing Early Restoration is to achieve tangible recovery of natural resources and natural resource services for the public's benefit while the longer-term injury and damage assessment is underway. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. Early restoration is not intended to, and does not fully address all injuries caused by the Spill. Restoration beyond Early Restoration projects would be required to fully compensate the public for natural resource losses from the Spill.

Pursuant to the process articulated in the Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement), the Trustees released, after public review of a draft, a Phase I Early Restoration Plan (ERP) in April 2012. In December 2012, after public review of a draft, the Trustees released a Phase II ERP. On May 6, 2013, the National Oceanic and Atmospheric Administration (NOAA) issued a public notice in the Federal Register on behalf of the Trustees announcing the development of additional future Early Restoration projects for a Draft Phase III Early Restoration Plan (ERP). This public access improvement project was submitted as an Early Restoration project on the NOAA website (http://www.gulfspillrestoration.noaa.gov) and submitted to the State of Florida. In addition to meeting the evaluation criteria for the Framework Agreement and the Oil Pollution Act (OPA), the project meets Florida's criteria that Early Restoration projects occur in the eight-county Florida panhandle area that deployed boom and was impacted by the Spill.

The Trustees propose to:

- improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area (Figure 12-33). The objective of the Apalachicola Cash Bayou project is enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. The restoration work proposed includes constructing a fishing and wildlife observation structure and parking area. The total estimated cost of the project is $209,171.
- improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area (Figure 12-34). The objective of the Apalachicola Sand Beach project is enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. The restoration work proposed includes constructing an elevated

boardwalk along an existing, periodically wet interpretative trail. The total estimated cost of the project is $53,818.

12.70.2 Project Location

The proposed project is located in the State of Florida, Franklin County, in the Apalachicola River Wildlife and Environmental Area. The project area is located along the East Bay portion of Apalachicola Bay, with the main portion of Apalachicola Bay being located approximately 5 miles to the southwest. Figure 12-33 and Figure 12-34 illustrate the project locations for Cash Bayou and Sand Beach respectively.

Figure 12-33. Cash Bayou Project location map.

Figure 12-34. Sand Beach Project location map.

12.70.3 Construction and Installation

Proposed construction and installation activities are summarized below for each of the projects.

Cash Bayou

The proposed improvements for Cash Bayou include constructing a parking area with an entrance kiosk and information station along State Route 65 in the area generally to the southwest of the bridge that crosses Cash Creek (see Figure 12-33 for project location and Figure 12-35 for an example of the kiosk). In addition, the project would construct a roughly 700' (i.e., 35' by 20') fishing and wildlife observation structure or fishing dock (see Figure 12-36 and Figure 12-37 for an example of each structure respectively) both of which have been used at other Florida Wildlife Management Areas..

Final designs have not been prepared but during a site visit in January, 2014 it was discussed that the parking area and area with the fishing and wildlife observation structure could be developed in nearby but separate areas along State Route 65 because of space constraints. While, the design and exact location for each of the above-mentioned aspects is not yet known, the maximum footprint needed for the sum of all the project elements is approximately 1.5 acres.

The fishing dock or elevated wildlife viewing structure would be sited along the bank of Cash Bayou based upon a wildlife viewing analysis of the site and connected to land by a dock. The proposed structure is expected to disturb approximately 0.2 acre.

Construction of the fishing and wildlife viewing structure would require some limited in-water work to place no more than 20 8’ diameter wood pilings for the structure along the creek. These pilings will be placed either by water jetting or mechanical auguring. Once pilings are placed the initial cross pieces for the pier and dock would be placed by workers using the same type of small workboats (e.g., 20’ skiffs) that would be used for the piling placement. The rest of the structure would then be build out from shore (note: no fish cleaning stations would be constructed). Either the final structure or associated parking lot would also include eductational signage (e.g., actions to take if a sea turtle is caught/hooked). During all in-water construction activity, the best management practices identified within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented.

During the rest of the construction process typical site maintenance BMPs (e.g., hay bailing to control runoff, fueling vehicles and equipment away from the water) will be followed to avoid runoff-related impacts to the aquatic environment.

Figure 12-35. Entrance Package Example.

Figure 12-36. Wildlife Viewing Structure Example.

Figure 12-37. Fishing Dock Example.

Sand Beach

As part of the Sand Beach project an elevated boardwalk would be built on an existing, periodically wet interpretative trail. This boardwalk would reduce visitor impact to the forest floor. No new trail would be constructed and no trees will need to be removed to build the boardwalk. The walkway would be approximately 6 feet wide and approximately 1,000-1,800 feet long to extend across approximately 6,000 to 11,000 square feet of existing trail. Figure 12-38 shows an example of an existing elevated walk way used at other Florida Wildlife Management Areas similar to the one envisioned for Sand Beach.

Figure 12-38. Elevated Walkway Example.

Project construction is expected to begin 90 days after funding is received, with construction to start in summer/fall of 2014 and finish in the summer of 2016.

12.70.4 Operations and Maintenance

Long-term monitoring and maintenance of the improved facilities would be completed by Florida Fish and Wildlife Conservation Commission (FWC) and Franklin County as part of their regular public facilities maintenance activities. FWC or Franklin County would also be responsible for contracting for or control of garbage pick-up and litter control at the site. Franklin County would be responsible for long-term maintenance of the observation platform and parking area and inspect them regularly. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and would be assumed by FWC and Franklin County. Following construction, FWC and Franklin County would monitor recreational use of the site and will conduct visitor counts of the boardwalk and at the fishing and wildlife viewing structure.

12.70.5 Affected Environment and Environmental Consequences

Under the National Environmental Policy Act, federal agencies must consider environmental impacts of their actions that include, among others, impacts on social, cultural, and economic resources, as well as natural resources. The following sections describe the affected environment and environmental consequences of the project.

12.70.5.1 No action

Both OPA and NEPA require consideration of the No Action alternative. For this Final Phase III ERP/PEIS proposed project, the No Action alternative assumes that the Trustees would not pursue this project as part of Phase III Early Restoration.

Under No Action, the existing conditions described for the project site in the affected environment subsection would prevail. Restoration benefits associated with this project would not be achieved at this time.

12.70.5.2 Physical Environment

12.70.5.2.1 Geology and Substrates

Affected Resources

The project area is located in Franklin County, Florida, along the East Bay portion of Apalachicola Bay. The majority of project area is predominantly flat with project and adjacent area elevations ranging from sea level to 6 feet above sea level. The majority of the proposed project areas and soils have been previously disturbed, while much of the surrounding areas are void of development and are undisturbed. Soils in the project area have been classified by Department of Agriculture Natural Resources Conservation Services (USDA NRCS) as Bohicket and Plummer soil types. Each of these soil groups are composed primarily of sand with some portions of clay, are flat with slight slopes, are poorly drained and have a low erosion potential. The Bohicket soil type found at the Sand beach site is flooded twice daily by sea water. Typical vegetation on the Bohicket soil type is smooth cordgrass with the Plummer soil type being covered by forest (FWC 2002).

Environmental Consequences

Construction and construction activities associated with the development of improved access and enhanced recreational activities would disturb modify and expose soils in the direct footprint of the project sites, approximately 2 acres. Construction activities would likely include the use of a backhoe, grader, skid steer, and tractors. Construction equipment and materials staging have not been identified but would likely be located on previously disturbed sites or sites that would be disturbed as a result of construction. Impacts to soils would occur primarily through the clearing and grading of sites, the removal of existing vegetation and the placement of structures including pilings and foundations. Soils in the direct footprint of structures, the parking area, and trails would lose all productivity; however, based on the relatively small amount of soils impacted and previous disturbances to the soils, impacts would be long-term, minor and adverse. Specific mitigation measures would be implemented during construction to minimize erosion and overall soil impacts. These would include following established best management practices (BMPs) such as the implementation of an erosion control and storm water

management plan, the installation of sediment traps prior to commencement of construction activities; and ongoing construction monitoring to ensure compliance.

Given that there would likely be increased visitation to the area as a result of the proposed project, soils in the footprints of the project areas would see continued impacts; however, based on the nature of impacts (vehicle and foot traffic) and the relatively small area impacted, impacts would be long-term and negligible as a result of site use.

12.70.5.2.2 Hydrology and Water Quality

Affected Resources

The principal water bodies associated with the project area are the East Bay portion of Apalachicola Bay. Both bodies of water have been designated as outstanding Florida waters (OFWs), indicating these bodies of water are worthy of special protection due to natural attributes. An OFW is designated by the Florida Department of Environmental Protection after the Environmental Regulation Commission determines that the environmental, social, and economic benefits of the Special Water status outweigh the environmental, social, and economic costs (62- 302.700(5), Fla. Admin. Code). The Florida Department of Environmental Protection (FDEP) is granted the authority by Section 403.061(27), Florida Statutes, to establish rules for OFWs. The purpose of the designation as an OFW is to protect existing water quality and to preserve the exceptional ecological and recreational significance of the waterbody. The FDEP will not issue permits for direct pollutant discharges to OFWs, which would lower ambient (existing) water quality, or for indirect discharge, which would significantly degrade the OFW.

Previous silviculture use of the Sand Beach site as well as ditching, bedding, and tram or road development have worked as a point source of pollution to water quality in the area and in some instances have adversely impacted water quality in the localized area. Both project sites are located within a coastal floodplain.

Environmental Consequences

Based on construction activities on-land it is possible that some impacts via turbidity and the potential for increased sediment released into water could occur. It is anticipated that all potential impacts would be short-term in nature occurring only during construction resulting in short-term, negligible, adverse impacts to water quality. BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies would be employed to minimize any water quality and sedimentation impacts. It is not anticipated that based on the construction requirements of the proposed project that impacts to groundwater would occur.

Long-term, the planned enhancement of recreational opportunities could result in some in-water recreation, increasing turbidity of water in the project area, resulting in long-term, negligible adverse impacts. Based on the details and construction requirements of the proposed project, impacts to floodplains and groundwater are not anticipated.

The proposed discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project is currently being coordinated with the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the USACE and final authorization pursuant to CWA/RHA will be completed prior to implementation of the project.

12.70.5.2.3 Air Quality and Greenhouse Gas Emissions

Affected Resources

The U.S. Environmental Protection Agency (USEPA) defines ambient air in 40 C.F.R. Part 50 as "that portion of the atmosphere, external to buildings, to which the general public has access." In compliance with the 1970 Clean Air Act (CAA) and the 1977 and 1990 Clean Air Act Amendments (CAAA), the USEPA has promulgated National Ambient Air Quality Standards (NAAQS). The NAAQS include primary standards which set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. To date, the USEPA has issued NAAQS for seven criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO_2), particles with a diameter less than or equal to a nominal 10 micrometers (PM10), particles with a diameter less than or equal to a nominal 2.5 micrometers ($PM_{2.5}$), ozone (O_3), nitrogen dioxide (NO_2), and lead (Pb). Individual states may promulgate their own ambient air quality standards for these "criteria" pollutants, provided that they are at least as stringent as the federal standards. In Table 12-43, below, both State of Florida and federal primary ambient air quality standards for criteria air pollutants are presented.

The project is located in a primarily undeveloped area with few sources of emissions. In 2013, Franklin County was in attainment of the NAAQS for all criteria pollutants as designated by the USEPA.

Greenhouse gases (GHGs) are chemical compounds found in the Earth's atmosphere that absorb and trap infrared radiation as heat. Global atmospheric GHG concentrations are a product of continuous emission (release) and removal (storage) of GHGs over time. In the natural environment, this release and storage is largely cyclical. For instance, through the process of photosynthesis, plants capture atmospheric carbon as they grow and store it in the form of sugars. Human activities such as deforestation, soil disturbance, and burning of fossil fuels disrupt the natural cycle by increasing the GHG emission rate over the storage rate, which results in a net increase of GHGs in the atmosphere. The principal GHGs emitted into the atmosphere through human activities are CO2, methane, nitrous oxide, and fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. CO2 is the major GHG emitted, and the burning of fossil fuels accounts for 81 percent of all U.S. GHG emissions (USEPA 2010).

Table 12-43. State and Federal ambient standards for criteria air pollutants.

POLLUTANT	AVERAGING PERIOD	FEDERAL PRIMARY STANDARD	STATE OF FLORIDA STANDARD
Ozone	8-hour	0.075 ppm	Same as Federal
	1-hour (daily max.)	0.12 ppm	Same as Federal
PM2.5	Annual (arithmetic mean)	15.0 µg/m^3	Same as Federal
	24-hour	35 µg/m^3	Same as Federal
PM10	Annual (arithmetic mean)	NA	50 µg/m^3
	24-hour	150 µg/m^3	150 µg/m^3
Carbon Monoxide	8-hour	9 ppm	9 ppm
	1-hour	35 ppm	35 ppm
Nitrogen Dioxide	Annual (arithmetic mean)	0.053 ppm	0.05 ppm
	1-hour	0.100 ppm	Same as Federal
Sulfur Dioxide	Annual (arithmetic mean)	0.03 ppm	0.02 ppm
	24-hour	0.14 ppm	0.10 ppm
	1-hour (per annum)	NA	0.40 ppm
	1-hour (per 7 days)	NA	0.25 ppm
	5-minute	NA	0.80 ppm
Lead	Rolling 3-month average	0.15 µg/m^3	Same as Federal
	Quarterly average	1.5 µg/m^3	Same as Federal
Total Suspended Particulate	Annual (geometric mean)	NA	60 µg/m3
	24-hour	NA	150 µg/m3

Implementation of the proposed project would include transportation and heavy construction equipment which may include a backhoe, grader, skid steer, dump trucks, and tractors.

Environmental Consequences

Project implementation would require the use of heavy equipment which would temporarily affect air quality in the project vicinity due to construction vehicle emissions. Excavation activities associated with the construction portions of the project may produce fine particulate matter. Available BMPs would be employed to prevent, mitigate, and control potential air pollutants during project implementation. Any air quality impacts that would occur would be localized, short in duration and minimal based on the small scale of construction with overall impacts to air quality would be short-term and minor. Long-term, the site may experience some increase in use by the public potentially resulting in increased emissions and impacts to air quality from visitors passenger vehicles; however, the increase in visitor use is not expected to be substantial enough to cause any evident impacts to air quality or GHG, with impacts being long-term, minor and adverse.

The use of gasoline and diesel-powered construction vehicles and equipment, including cars, trucks, bulldozers, dump trucks, and backhoes, would contribute to an increase in GHG emissions. Table 12-44 describes the high end of a potential likely GHG emission scenario for the implementation of this project.

Based on the assumptions described in Table 12-44 below, and the small scale and short duration of the construction portion of the proposed project, predicted GHG emissions would be short-term and minor and would not exceed 25,000 metric tons of CO_2e per year. Available BMPs would be employed to reduce the release of GHGs during implementation. Based on the small scale and short duration of the project, GHG emissions in the project staging and deployment areas would be minimal. Therefore, any increase in GHG emissions would be short-term and minor.

12.70.5.2.4 Noise

Affected Resources

Noise can be defined as unwanted sound and noise levels, and impacts are interpreted in relationship to its impacts on nearby residents. Noise associated with visitors and recreational land uses, such as boating, can be of concern to surrounding communities. Noise also emanates from vehicular traffic associated with new facilities and from project sites during construction. Ambient noise (the existing background noise environment) can be generated by a number of noise sources, including mobile sources, such as airplanes, automobiles, trucks, and trains; and stationary sources such as construction sites, machinery, or industrial operations.

The Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) was enacted to establish noise control standards and to regulate noise emissions from commercial products such as transportation and construction equipment. The standard measurement unit of noise is the decibel (dB), which represents the acoustical energy present. Noise levels are measured in A-weighted decibels (dBA), a logarithmic scale which approaches the sensitivity of the human ear across the frequency spectrum. A 3-dB increase is equivalent to doubling the sound pressure level, but is barely perceptible to the human ear. Table 12-45 presents some familiar sounds and their decibel levels.

The project area is primarily void of development with the primary sources of ambient (background) noise in the project area coming from the operation of vehicles, commercial and recreational vessels, the nearby SR 65 and the Apalachicola Regional Airport and natural sounds such as wind and wildlife. The levels of noise in the project area varies, depending on the season, and/or the time of day, the number and types of sources of noise, and distance from the sources of noise. Noise levels fluctuate with highest levels usually occurring during the spring and summer months due to the increased boating and coastal beach activities.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise-sensitive land uses in the project area include visitors and wildlife to the area.

Environmental Consequences

Project area visitors and wildlife may be sensitive to changes in noise sources or levels due to the project. Instances of increased noise are expected during construction of the project. The proposed project would generate construction noise associated with equipment during the construction period. Construction noise can also be a nuisance to those visitors and wildlife in the area.

Table 12-44. Projected project GHG emissions.

VESSEL/CONSTRUCTION EQUIPMENT26	NO. OF HOURS OPERATED27	CO_2 (METRIC TONS)28	CH4 (CO_2E) (METRIC TONS)29	NOX (CO_2E) (METRIC TONS)	TOTAL CO_2E (METRIC TONS)
Trackhoe30	1,680	588	.34	3.36	591.70
Crane	720	209	.07	.72	209.79
Grader	720	281	.22	2.16	283.38
Dumptruck (2)3132	1,680	1,142	.67	6.72	1,215.72
TOTAL					**2,300.59**

Table 12-45. Familiar sounds and their decibel levels (dB).

SOUND	DECIBEL LEVEL (DB)
Whisper	30
Normal Conversation	50-65
Vacuum cleaner at 10 feet	70
Midtown Manhattan Traffic Noise	70-85
Lawnmower	85-90
Train	100
Nearby Jet Takeoff	130

Source: Occupational Health and Safety Administration 2012

Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours. Because construction noise is temporary, any negative impacts to the human environment during construction activities would be short-term and minor.

[26] Construction estimates from an email from the Florida Fish and Wildlife Conservation Commission on 9/30/2013

[27] Emissions assumptions for all equipment based on 240 10-hour days of operation per piece of equipment over a 12-month construction period.

[28] CO_2 emissions assumptions for diesel and gasoline engines based on USEPA 2009.

[29] CH_4 and NOx emissions assumptions and CO_2e calculations based on USEPA 2011.

[30] GHG emission estimates were not available for skid steers. In order to present the highest estimate, GHG emissions for a backhoe were used.

[31] GHG emission estimates were not available for a tractor trailer. In order to present the highest estimate, GHG estimates for a dumptruck were used.

[32] Construction equipment emission factors based on USEPA NONROAD emission factors for 250hp pieces of equipment. Data were accessed through the California Environmental Quality Act Roadway Construction Emissions Model.

Once project components are constructed, noise can be generated from operations, the vehicles associated with site use and visitor use of the site. This would add a slight amount of noise and notably change the noise environment of the area. However, it is not anticipated that noise levels would be bothersome for visitors or wildlife in the area, with overall impacts being long-term, minor and adverse.

12.70.5.3 Biological Environment

12.70.5.3.1 Living Coastal and Marine Resources

Affected Resources

Coastal and marine resources at the site include open water habitat of the East Bay portion of the Apalachicola Bay, the existing coastline and the inward project areas. Vegetation in both project areas can be classified as pinelands and freshwater marsh. Freshwater marshes are some of the most productive systems and are vital habitats for a variety of species including sawgrasses *(Cladium jamaicense)*, bulrushes *(Scirpus ssp.)*, cattails *(Typha ssp.)*, cordgrasses *(Spartina ssp.)*, and needlerushses *(Juncus ssp.)*. Typical species occupying these environments include ducks, wading birds, shore birds, otters, mink, raccoon, alligators, turtles, snakes and frogs. Pinelands are characterized by an open canopy forest of widely spaced pine trees, with little or no understory and dense ground cover or herbs and shrubs. Based on existing literature and information obtained through the USFWS, the Bald eagle *(Haliaeetus leucocephalus)* has been noted to occur in the Cash Bayou project area. The only threatened or endangered species located in the project areas is the candidate species of unnamed beard grass also being located in Cash Bayou.

Environmental Consequences

Impacts to living coastal and marine resources are expected to be short-term and minor. The proposed project is not anticipated to require any in-water work, and the project area already sees some recreational use. All appropriate conditions permit requirements, and BMPs would be followed. The development of the site would result in some short-term noise increased and increases in the human presence of the area. This could result in the displacement of some wildlife and the removal of existing vegetation. However, based on the relatively small areas to be developed and the abundance of suitable habitat and vegetation in the vicinity of the project area, impacts are not expected to be substantial and would likely be long-term, minor and adverse. The continued use of the site by visitor as a result of construction could result in some long-term disturbances. However, it is expected that with the types of activities likely to occur at the site, previous interactions of wildlife with humans in the area and the relatively small area impacted, impacts are likely to be long-term, minor and adverse.

Affected Resources

Protected Species

The Trustees have reviewed the proposed project for potential impacts to listed, candidate, and proposed species and designated and proposed critical habitats in accordance with Section 7 of the ESA for species managed by USFWS. For this, the Trustees first reviewed the species list for Franklin County,

Florida where both project areas are located [33] and also considered the presence of bald eagles (*Haliaeetus leucocephalus*) and migratory birds. No habitat for listed, proposed, or candidate species known from Franklin County, Florida is present in the action area and no listed, proposed, or candidate species are expected to be in the action area.

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Protected Resource Division (PRD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that the Sand Beach project falls outside of NMFS Endangered Species Act (ESA) jurisdiction, as it does not contain suitable habitat for species managed by NMFS. As a result, the project did not require further ESA evaluation from NOAA.

In addition to the protected species managed by USFWS,for the Cash Bayou project, the Trustees reviewed implementation actions for potential impacts to the following protected species (status indicated) and their associated critical habitat, if appropriate, managed by NMFS:

- Gulf Sturgeon, *Acipenser oxyrinchus desotoi*, Threatened
- Green Sea Turtle, *Chelonia mydas*, Endangered
- Loggerhead Sea Turtle, *Caretta caretta*, Threatened
- Hawksbill Sea Turtle, *Eretmochelys imbricata*, Endangered
- Leatherback Sea Turtle, *Dermochelys coriacea*, Endangered
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii*, Endangered

Environmental Consequences

Based a consideration of the available information, incudind a site visit on January 9, 2014, the Trustees made a no effect determination for all listed, proposed, and candidate species known from Franklin County, Florida managed by DOI. Similarly, with no terrestrial critical habitat designated or proposed in or near the action area; the Trustees concluded none will be adversely modified or destroyed. The USFWS concurred with this determination on February 18, 2014 (McClain, 2014).

Further, no bald eagles are known to nest near the project area. Migratory birds including passerines and marsh birds are present in the action area and may be feeding, resting, or nesting in the nearby marsh vegetation or the large trees on site. However, precautions during construction will be used to protect any migratory birds that may be in or near the project area. Such precautions include: avoiding the removal of trees and shrubbery during nesting season, minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence. These measures should ensure that any take of migratory birds is avoided. Therefore, no impacts to bald eagles or migratory birds are anticipated.

Consultation of potential impacts on protected species managed by NMFS from the Cash Bayou project was initiated on February 10, 2014. The Trustees' review of the potential impacts of the project for

[33] The U.S. Fish and Wildlife, Panama City office website (http://www.fws.gov/panamacity/specieslist.html) provides a county-based list of federal threatened, endangered, and other species of concern likely to occur in the Florida Panhandle. Information downloaded March 13, 2013.

protected species managed by NMFS for the Cash Bayou project concluded the proposed action "may affect, but is not likely to adversely affect" the following species and associated critical habitats in the project implementation area:

- Gulf Sturgeon - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Green Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Loggerhead Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Hawksbill Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Leatherback Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.
- Kemp's Ridley Sea Turtle - The proposed project may affect, but is not likely to adversely affect and will not jeopardize the continued existence of the species.

Concurrence from NMFS with the Trustees' conclusions for these species and associated critical habitats is still pending.

For the Cash Bayou project, the Trustees also evaluated the potential for take of Marine Mammals under the MMPA and due to these species' mobility and the implementation of NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006), *Standard Manatee Conditions for In-Water Work* (USFWS 2011), and USFWS recommended conservation measures for listed species and other trust resources, take of marine mammals under the MMPA is not anticipated.

Affected Resources

Essential Fish Habitat

EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse impacts on habitat caused by fishing and non-fishing activities. The NMFS has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column.

Based on the Trustees' reviews of project materials (Spring 2013) in coordination with representatives from NOAA's Habitat Conservation Division (HCD) in the South East Regional Office (SERO), the NOAA Restoration Center determined that the Sand Beach project will not affect EFH because there is no EFH in the project area. As a result, the project did not require further EFH evaluation.

Error! Reference source not found. provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan in the vicinity of the Apalachicola River Cash Bayou site and East Bay portion of Apalachicola Bay that are relevant for consideration as part of the Cash Bayou project implementation.

Table 12-46. Federally managed fisheries with designated Essential Fish Habitat (EFH) in the proposed project area.

EFH_Category	Species
Atlantic Highly Migratory Species	
	Atlantic Sharpnose Shark-Adult
	Atlantic Sharpnose Shark-Juvenile
	Atlantic Sharpnose Shark-Neonate
	Blacknose Shark-Adult
	Blacknose Shark-Juvenile
	Blacknose Shark-Neonate
	Blacktip Shark-Adult
	Blacktip Shark-Juvenile
	Blacktip Shark-Neonate
	Bonnethead Shark-Adult
	Bull Shark-Juvenile
	Finetooth Shark-Adult-and-Juv
	Great Hammerhead Shark-All
	Scalloped Hammerhead Shark-Juvenile
	Scalloped Hammerhead Shark-Neonate
	Spinner Shark-Juvenile
	Spinner Shark-Neonate
Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic	
	Spanish Mackerel
	Cobia
	King Mackerel
Gulf of Mexico Red Drum	
	Red Drum
Gulf of Mexico Shrimp	
	Pink Shrimp
	White Shrimp
	Brown Shrimp
Reef Fish Resources of the Gulf of Mexico	
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper

EFH_Category	Species
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish

Environmental Consequences

Essential Fish Habitat

In reviewing potential impacts to EFH as a result of the Cash Bayou project the Trustees determined that the project is not likely to adversely affect EFH. Implementing the project would result in an extremely limited conversion of existing substrate with the placement of the project pilings. Disturbance to any EFH and species using the habitat in areas adjacent to locations where the proposed project is to take place would be brief and insignificant with risks further mitigated by following identified best management practices during construction. No adverse impacts to other EFH types would result from the proposed restoration techniques.

On March 17, 2014 NOAA concurred that as long as the proposed structure complied with the the *Dock Construction Guidelines in Florida for Docks or Other Minr Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001)* the project is not likely to adversely affect EFH and disturbance to any EFH would be brief and insignificant (Fay, 2014).

12.70.5.3.2 Invasive Species

Affected Resources

Non-native invasive species could alter the existing terrestrial or aquatic ecosystem within the project areas, and possibly expand out into adjacent areas after the initial introduction. The invasive species

threat, once realized, could result in economic damages. Prevention is ecologically responsible and economically sound. Chapter 7 addresses invasive species, pathways, impacts, and prevention. At this time specific invasive species that may be present on the project sites or could be introduced through the projects have not yet been identified.

Environmental Consequences

Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices would primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors. Other measures that could be implemented are identified in the Chapter 6 Appendix. Due to the implementation of BMPs, the Trustees expect impacts due to invasive species introduction and spread to be short term and minor.

12.70.5.4 Human Uses and Socioeconomics

12.70.5.4.1 Socioeconomics and Environmental Justice

Affected Resources

The population of Franklin County was 11,596 in 2012, accounting for less than one percent of the state's total population. In 2013, median household income in Franklin County was $27,040, which was approximately 35 percent lower than median household income in the State of Florida. Franklin County contains both minority and low-income populations; however, no communities of environmental justice concern are located adjacent to the project area (Bureau of Labor Statistics 2013).

Environmental Consequences

Based on the relatively small scale of construction activities it is not anticipated that the proposed project would create jobs nor would it have substantial impacts to the socioeconomic environment as a result of construction. It is likely that there would be direct beneficial impacts to the local economy as a result of construction and from increased recreational and tourist activity in response to the project components. These economic benefits would be concentrated to the local economy as well as in the service and retail industry sectors. Beneficial economic impacts would accrue to local recreational supply retailers, restaurants, and hospitality providers. The proposed project would not adversely affect any low income or minority populations. Overall, no adverse impacts would occur to socioeconomics and environmental justice as a result of the proposed project.

12.70.5.4.2 Cultural Resources

Affected Resources

The area of potential effect (APE) for reviews under Section 106 of the National Historic Preservation Act includes the areas of direct and indirect impact. For this component of the proposed project, the APE

consists of the entire project areas as identified in Figure 12-33 and Figure 12-34 respectively forCah Bayou and Sand Beach.

Currently within the Apalachicola River Wildlife and Management Area there are 24 cultural sites, 13 historic and 11 prehistoric. However, none of the proposed sites occur within the project area (FWC 2002).

This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project would affect any historic properties. While the Section 106 review process is ongoing, an initial review of the project has not identified the presence of a historic property within the project area.

Environmental Consequences

A complete review of this project under Section 106 of the NHPA is ongoing and would be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse impacts on historic properties located within the project area. This project would be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

12.70.5.4.3 Infrastructure

Affected Resources

Infrastructure for the purpose of this analysis includes both transportation and utility networks. Vehicle use (for both transportation and maintenance) constitutes the primary source of energy consumption in the vicinity of the proposed project area, primarily stemming from SR 65. The proposed project would not prevent access to any known energy resources in the project vicinity, such as coal, oil, or natural gas. The project would have no such impacts on the availability of these resources.

Environmental Consequences

Construction of parking lots and enhancements to existing trails would lead to long-term beneficial impacts to existing transportation infrastructure. Based on the nature of proposed improvements there would be no additional public utility requirements because project components would not require utilities. A construction phase solid waste management plan would be implemented to manage the collection, recycling, and disposal of all construction and demolition waste and non-construction related waste generated during construction activities.

12.70.5.4.4 Land and Marine Management

Affected Resources

The area surrounding the proposed project site is primarily void of development and consists of forests and shoreline. The proposed project area is currently used for recreational activities.

Environmental Consequences

Improvements to access and the enhancement of recreational activities at Cash Bayou would alter existing land management because the site would change from undeveloped to developed. However, the development of the site would not affect land and marine management because the site is already

approved for recreational use; project plans would not change the nature of land use or management but would improve the function of the existing site, resulting in no impacts. Trail enhancements at Sand Beach would not alter existing land use at the site because it already is used for recreational activities, and as a result no impacts would occur.

Under the Coastal Zone Management Act of 1972, the selection of the projects for early restoration must be consistent to the maximum extent practicable with the federally-approved coastal management programs for the states where the activities would affect a coastal use or resource. The Federal Trustees submitted a consistency determination for appropriate state review coincident with the public review of the Phase III DERP/PEIS (Federal Trustees 2013). The State of Florida responded and concurred with the federal determination of consistency at this point in the early restoration planning process (Milligan 2014).

12.70.5.4.5 Aesthetics and Visual Resources

Affected Resources

The project area can be described as undeveloped and primarily consists of wetlands and existing vegetation. The topography of the area is flat to gently sloping and the existing landscape in the vicinity of the proposed project areas is characterized by a mosaic of marsh wetlands with patches of mature coastal forest. There are no designated protected viewsheds in the vicinity of the project site.

Environmental Consequences

Temporary impacts to visual resources would result from construction of the proposed project components. Large construction equipment such as backhoes removal would temporarily obstruct the views for visitors and recreational users at the site. These short-term construction-related impacts to visual resources would be minor.

12.70.5.4.6 Tourism and Recreational Use

Affected Resources

The proposed project area is a public site that provides opportunities for recreation, including use of the recreational path and fishing. While, the site is currently accessed by the public, exact visitation is not known because visitor counts and monitoring are not conducted (FWC 2002).

Environmental Consequences

During the construction period, recreational experience would be impacted from noise and visual disturbances associated with the use of heavy equipment. While these temporary inconveniences would result in minor short-term impacts on tourism and recreational use of the project area during the construction at the project areas, it is not anticipated that these impacts would be substantial because visitor use of the site as it currently exists is not substantive. Over the long-term, it is expected that the development of enhanced recreation activities would result in a long-term beneficial impact to overall visitor experience as a result of improved access to the sites, improved viewsheds, and an overall improved recreational experience.

12.70.5.4.7 Public Health and Safety and Shoreline Protection

Affected Resources

No hazardous materials currently exist at the project site where the potential for human exposure to natural or man-made hazards does not present a substantial risk. The project area is situated along an area of stable coastline not prone to significant shoreline erosion under normal conditions. Other natural hazards do not occur in any great abundance within the boundaries of the park.

Environmental Consequences

No hazardous wastes would be created during restoration and construction activities. All hazardous materials handled during construction including paints, solvents, chemicals, and petroleum products would be contained, and appropriate barriers would be in place to ensure the protection of adjacent water resources from potential spills and leaks. In the event of a discharge of oil or release of hazardous substances, all spills would be reported to the FDEP and all federal and state regulations would be followed during the cleanup. BMPs in accordance with the Occupational Safety and Health Administration (OSHA) and state and local requirements would be incorporated into construction activities to ensure proper handling, storage, transport and disposal of all hazardous materials. All waste generated during construction would be disposed of in the appropriate waste or recycling receptacles on-site would be taken off-site and disproved in an approved waste disposal site by the construction contractor. All occupational and safety regulations would be followed to ensure safety of all workers and the public. Construction and construction related activities would lead to the development of areas that are currently maintained as natural habitat. During construction, soil and sediment stabilization measures would be incorporated into project design as needed in areas where the potential for erosion exists in order to protect resources and public health and safety. No adverse impacts to public health and safety are anticipated as a result of this construction of this project.

12.70.6 Summary and Next Steps

The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project would improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing a boardwalk. The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements Cash Bayou project would improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing a fishing and wildlife observation structure and parking area. These projects are consistent with the selected alternative in the Final Phase III ERP/PEIS (Alternative 4), under which the Trustees propose to implement projects emphasizing the restoration of habitat and living coastal and marine resources as well as projects emphasizing the restoration of recreational opportunities.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects would enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. The Trustees considered public comment and information relevant to environmental concerns bearing on the proposed actions or their impacts. The Trustees' determination on selection of the project will be included in the Record of Decision.

12.70.7 References

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